NEDITEK

Discrete Devices

Selection Guide

2024 Version

Silicon Power Devices

NEDI Technology Co., Ltd

Contents

Silicon Power Devices

Fast Recovery Epitaxial Diodes（FRED）

Fast recovery epitaxial diodes (FRED) combine the technologies of high voltage electric field cut-off terminal and minority carrier lifetime control. In the circuit, they're widely used in wind/solar power inverters, energy storage systems, motor drivers, UPS, etc. NEDITEK uses planar technology to produce fast recovery epitaxial diode chip, with ultrafast recovery speed, soft recovery, low leakage current, high reliability and other characteristics.

Pt-doped FRED (Tjmax=175℃) has a negtive temperature coefficient. Positive temperature coefficient DZ platform FRED (Tjmax=125℃) is conducive to achieving static current sharing in the modules. Near-zero temperature coefficient DE platform FRED (Tjmax=150℃) with low Irrm can achieve the lowest conduction loss.

Selection Table for Pt-doped FRED

SEQ	Parameter	I_{FAV}	V_{RRM}	I_R@V_R	I_{FSM}	T_{rr}[a]		T_{rr}[b]	V_F@I_F		Chip Size	
	Unit	[A]	[V]	[μA]	[A]	[NS]		[NS]	[V]		[μm*μm]	mil
	Product	Spec	Spec	Max	Spec	Max	Typ	Typ	Max	Typ		
1	NDGY01001	2 1	200	2	20	20	15	15	0.9 0.85	0.87 0.82	1035*1035	40
2	NDGY01002	6 3	200	2	60	25	15	19	0.975 0.875	0.91 0.85	1490*1490	58
3	NDGY01003	8 4	200	2	80	25	16	20	0.975 0.875	0.91 0.85	1690*1690	66
4	NDGY01004	8 4	200	2	80	25	16	20	0.975 0.875	0.91 0.85	2270*2270	89
5	NDGY01005	10 5	200	2	100	25	18	22	0.975 0.875	0.91 0.85	1840*1840	72
6	NDGY01006	15	200	2	150	35	20	24	0.975	0.91	2190*2190	86
7	NDGY01007	15	200	2	150	25	18	22	1.05	0.96	2190*2190	86
8	NDGY01008	20	200	2	200	30	21	25	1.05	0.98	2390*2730	94*107
9	NDGY01009	20	200	2	200	30	21	25	1.05	0.95	2390*2730	94*107
10	NDGY01010	20	200	2	200	30	22	26	1.05	0.98	2680*2680	105
11	NDGY01011	25	200	2	250	30	23	27	1.05	0.98	2830*2830	111
12	NDGY01012	35	200	2	350	35	27	31	1.05	0.98	3340*3340	131
13	NDGY01013	40	200	2	400	40	30	34	1.05	0.98	4030*4030	158
14	NDGY01014	100	200	5	1000	70	55	45	1.05	0.98	5460*5460	215

Selection Table for Pt-doped FRED

SEQ	Parameter	I_{FAV}	V_{RRM}	$I_R@V_R$	I_{FSM}	T_{rr}[a]		T_{rr}[b]	$V_F@I_F$		Chip Size	
	Unit	[A]	[V]	[μA]	[A]	[NS]		[NS]	[V]		[μm*μm]	mil
	Product	Spec	Spec	Max	Spec	Max	Typ	Typ	Max	Typ		
15	NDGY01015	5	300	2	50	25	19	23	1.3	1.3	1690*1690	66
16	NDGY01016	8	300	2	80	15	13	10	2	1.7	1840*1840	72
17	NDGY01017	10	300	2	100	25	19	23	1.3	1.1	2190*2190	86
18	NDGY01018	25	300	2	250	40	31	27	1.2	0.95	3430*3430	135
19	NDGY01019	30	300	2	300	40	32	28	1.2	0.95	4030*4030	158
20	NDGY01020	30	300	2	300	35	29	25	1.3	1.05	4030*4030	158
21	NDGY01021	45	300	5	450	55	40	35	1.2	1	4800*4800	189
22	NDGY01022	80	300	5	800	60	50	44	1.3	1.1	5460*5460	215
23	NDGY01023	5	400	2	50	30	22	26	1.3	1.12	1380*1380	53
24	NDGY01024	5	400	2	50	30	22	26	1.3	1.1	1500*1500	59
25	NDGY01025	8	400	2	80	30	24	28	1.3	1.15	1640*1640	64
26	NDGY01026	10	400	2	100	35	27	24	1.3	1.12	2030*2030	80
27	NDGY01027	10	400	2	100	30	25	22	1.3	1.15	1840*1840	72
28	NDGY01028	15	400	2	150	35	27	24	1.35	1.15	2230*2230	88
29	NDGY01029	20 10	400	2	200	30	22	19	1.6 1.35	1.33 1.13	3030*3030	119
30	NDGY01030	40	400	5	400	40	31	27	1.35	1.15	3000*5400	118*212
31	NDGY01031	40	400	5	400	40	31	27	1.45	1.2	4000*4000	157
32	NDGY01032	60	400	5	600	55	42	36	1.45	1.25	5460*5460	215
33	NDGY01033	75	400	10	750	80	70	45	1.35	1.1	6600*6600	260
34	NDGY01034	4	600	2	40	35	25	21	1.55	1.3	1420*1420	56
35	NDGY01035	5	600	2	50	35	26	22	1.55	1.3	1550*1550	61
36	NDGY01036	8 4	600	2	80	35	27	23	1.55 1.45	1.3 1.18	1830*1830	72
37	NDGY01037	8	600	10	80	25	15	15	2.3	1.9	1830*1830	72
38	NDGY01038	8	600	10	80	25	16	16	2.3	1.9	2030*2030	80
39	NDGY01039	8	600	2	80	35	27	23	1.55	1.3	2030*2030	80

Selection Table for Pt-doped FRED

SEQ	Parameter	I_{FAV}	V_{RRM}	I_R@V_R	I_{FSM}	T_{rr}[a]		T_{rr}[b]	V_F@I_F		Chip Size	
	Unit	[A]	[V]	[μA]	[A]	[NS]		[NS]	[V]		[μm*μm]	mil
	Product	Spec	Spec	Max	Spec	Max	Typ	Typ	Max	Typ		
40	NDGY01040	10	600	2	100	35	27	23	1.55	1.3	2230*2230	88
41	NDGY01041	10	600	10	100	25	17	17	2.3	1.9	2230*2230	88
42	NDGY01042	10	600	10	100	30	22	20	1.8	1.55	2190*2190	88
43	NDGY01043	12	600	10	120	35	28	24	1.6	1.3	2600*2600	102
44	NDGY01044	15	600	2	150	40	28	25	1.55	1.3	3030*3030	119
45	NDGY01045	15	600	10	150	30	24	21	2.3	1.9	3030*3030	119
46	NDGY01046	20	600	2	200	45	35	30	1.6	1.3	3400*3400	134
47	NDGY01047	20	600	2	200	45	35	30	1.6	1.3	2800*3800	110*150
48	NDGY01048	30	600	2	300	50	37	32	1.55	1.3	3300*5200	130*205
49	NDGY01049	30	600	2	300	50	37	32	1.6	1.3	3300*5200	130*205
50	NDGY01050	30	600	10	300	40	29	24	2.3	1.9	3300*5200	130*205
51	NDGY01051	40	600	5	400	60	48	43	1.55	1.3	4030*5530	158*218
52	NDGY01052	60	600	10	600	75	60	35	1.45	1.25	5800*5800	228
53	NDGY01053	60	600	10	600	65	53	32	1.8	1.55	5800*5800	228
54	NDGY01054	60	600	10	600	70	58	35	2.3	1.9	5800*5800	228
55	NDGY01055	75	600	10	750	85	70	38	1.45	1.25	6600*6600	260
56	NDGY01056	75	600	10	750	75	60	34	1.8	1.55	6600*6600	260
57	NDGY01057	100	600	20	1000	110	75	60	1.45	1.25	9800*6500	386*256
58	NDGY01058	2	650	2	20	35	25	21	1.8	1.4	1150*1150	45
59	NDGY01059	4	650	2	40	35	25	23	1.8	1.5	1420*1420	59*59
60	NDGY01060	8	650	2	80	35	27	23	1.8	1.5	1830*1830	72
61	NDGY01061	8	650	2	80	35	27	23	1.8	1.45	2000*2000	79*79
62	NDGY01062	10	650	2	100	35	27	24	1.8	1.4	2230*2230	88
63	NDGY01063	10	650	2	100	35	27	24	1.8	1.45	2200*2200	87
64	NDGY01064	12	650	2	120	35	28	24	1.8	1.55	2600*2600	102

Selection Table for Pt-doped FRED

SEQ	Parameter	I_{FAV}	V_{RRM}	I_R@V_R	I_{FSM}	T_{rr}[a]		T_{rr}[b]	V_F@I_F		Chip Size	
	Unit	[A]	[V]	[μA]	[A]	[NS]		[NS]	[V]		[μm*μm]	mil
	Product	Spec	Spec	Max	Spec	Max	Typ	Typ	Max	Typ		
65	NDGY01065	15	650	2	150	40	28	25	1.8	1.55	3030*3030	119
66	NDGY01066	15	650	5	150	40	28	25	1.8	1.55	3000*3000	118*118
67	NDGY01067	20	650	5	200	45	35	30	1.8	1.4	3400*3400	134*134
68	NDGY01068	30	650	2	300	70	55	-	1.55	1.3	3300*5200	130*205
69	NDGY01069	30	650	2	300	55	42	33	1.8	1.55	3300*5200	130*205
70	NDGY01070	30	650	5	300	55	42	33	1.8	1.55	3300*5200	130*205
71	NDGY01071	40	650	5	400	65	50	45	1.8	1.55	4000*5500	157*216
72	NDGY01072	50	650	5	500	75	55	-	1.8	1.55	5000*5000	197
73	NDGY01073	60	650	10	600	85	65	38	1.55	1.3	5800*5800	228
74	NDGY01074	60	650	10	600	80	58	35	1.8	1.55	5800*5800	228
75	NDGY01075	60	650	5	600	85	65	-	1.55	1.35	5800*5800	229*229
76	NDGY01076	60	650	5	600	80	58	35	1.8	1.45	5800*5800	229*229
77	NDGY01077	75	650	10	750	90	75	42	1.55	1.3	6600*6600	260
78	NDGY01078	75	650	10	750	85	65	38	1.8	1.55	6600*6600	260
79	NDGY01079	75	650	5	750	85	65	38	1.8	1.55	6580*6580	259
80	NDGY01080	100	650	20	1000	110	77	63	1.55	1.3	9800*6500	386*256
81	NDGY01081	100	650	20	1000	100	75	60	1.8	1.55	9800*6500	386*256
82	NDGY01082	150	650	20	1500	150	100	60	1.8	1.55	9000*9000	354
83	NDGY01083	8	800	2	80	45	29	28	2	1.7	2030*2030	80
84	NDGY01084	30	1000	10	300	55	38	26	3	2.5	3130*6530	123*257
85	NDGY01085	6	1200	2	60	45	33	29	2.4	2	2200*2200	87
86	NDGY01086	8	1200	2	80	50	38	28	2.4	2	2480*2480	98
87	NDGY01087	8	1200	2	80	40	26	23	3.3	2.8	2480*2480	98
88	NDGY01088	10	1200	2	100	55	40	30	2.4	1.9	2700*2700	103
89	NDGY01089	15	1200	2	150	60	48	32	2.5	2	3430*3430	135

Selection Table for Pt-doped FRED

SEQ	Parameter	I_{FAV}	V_{RRM}	$I_R@V_R$	I_{FSM}	T_{rr}[a]		T_{rr}[b]	$V_F@I_F$		Chip Size	
	Unit	[A]	[V]	[μA]	[A]	[NS]		[NS]	[V]		[μm*μm]	mil
	Product	Spec	Spec	Max	Spec	Max	Typ	Typ	Max	Typ		
90	NDGY01090	15	1200	2	150	50	33	28	3.3	2.8	3430*3430	135
91	NDGY01091	20	1200	2	200	70	50	34	2.4	2	3030*5030	119*198
92	NDGY01092	20	1200	10	200	55	36	30	3.3	2.8	3030*5030	119*198
93	NDGY01093	30	1200	10	300	75	57	36	2.4	2	3130*6530	123*257
94	NDGY01094	30	1200	10	300	60	45	32	3.3	2.8	3130*6530	123*257
95	NDGY01095	40	1200	10	400	85	70	60	2.4	2	3700*6500	146*256
96	NDGY01096	50	1200	10	500	90	80	70	2.4	2	5000*6000	197*236
97	NDGY01097	60	1200	10	600	100	78	45	2.4	2	5130*7130	202*281
98	NDGY01098	60	1200	10	600	85	68	36	3.3	2.8	5130*7130	202*281
99	NDGY01099	75	1200	10	750	120	88	80	2.4	2	6500*6500	256
100	NDGY01100	100	1200	20	1000	150	115	60	2.4	2	9800*6500	386*256
101	NDGY01101	150	1200	20	1500	200	130	-	2.4	2	9240*9240	364
102	NDGY01102	150	1200	20	1500	200	130	-	2.4	2	11300*7300	118
103	NDGY01103	200	1200	20	2000	250	180	110	2.4	2	12000*12000	472
104	NDGY01104	200	1200	20	2000	250	180	-	2.4	1.9	12100*8700	476*343
105	NDGY01105	75	1700	20	750	150	110	-	2.8	2.3	6818*6818	268
106	NDGY01106	100	1700	20	1000	200	160	-	2.8	2.3	7632*7632	300
107	NDGY01107	150	1700	20	1500	250	210	-	2.8	2.3	9000*9000	354

Selection Table for Positive Temperature Coefficient FRED

SEQ	Parameter	I_{FAV}	V_{RRM}	$I_R@V_R$	I_{FSM}	T_{rr}[a]		T_{rr}[b]	$V_F@I_F$		Chip Size	
	Unit	[A]	[V]	[μA]	[A]	[NS]		[NS]	[V]		[μm*μm]	mil
	Product	Spec	Spec	Max	Spec	Max	Typ	Typ	Max	Typ		
1	NDGY01108	50	1200	5	50	90	80	70	2.4	2	6000*5000	236*197
2	NDGY01109	75	1200	10	750	125	95	90	2.4	2	6500*6500	256
3	NDGY01110	100	1200	10	1000	150	115	-	2.4	2	8500*7500	335*295

Selection Table for Near Zero Temperature Coefficient FRED

SEQ	Parameter	I_{FAV}	V_{RRM}	$I_R@V_R$	I_{FSM}	T_{rr}[a]		T_{rr}[b]	$V_F@I_F$		Chip Size	
	Unit	[A]	[V]	[μA]	[A]	[NS]		[NS]	[V]		[μm*μm]	mil
	Product	Spec	Spec	Max	Spec	Max	Typ	Typ	Max	Typ		
1	NDGY01111	100	650	5	1000	85	65	-	1.8	1.55	6580*6580	259
2	NDGY01112	30	1200	10	300	75	57	-	2.4	2	3130*6530	123*257

Notes: (1) Trra : IF=0.5A, IR=1A, Irr=0.25A, Ta=25℃ (Testes by TRR6000 from Poworld).

(2) Trrb : IF=1A, di/dt=200A/μs, VR=30V, Ta=25℃。

(3) Chip size might be slightly different due to dicing procedures.

Rectifier Diodes

Rectifier Diodes have the characteristics of fast switching speed and low loss, and can serve as rectifers, wave detection and regulators in circuit. Rectifier Diodes are widely used in rectifier circuits and low frequency inverter circuits.

Selection Table for Rectifier Diodes

SEQ	Parameter	I_{FAV}	V_{RRM}	$I_R@V_R$	I_{FSM}	$V_F@I_F$		Chip Size	
	Unit	[A]	[V]	[μA]	[A]	[V]		[μm*μm]	mil
	Product	Spec	Spec	Max	Spec	Max	Typ		
1	NDGY02001	30	650	2	300	1.2	1	3300*5200	130*205
2	NDGY02002	60	1200	5	600	1.3	1.1	5100*7100	201*280

Power Schottky Barrier Diodes (Power SBD)

Power Schottky barrier diodes have the advantages of high switching speed and low forward voltage drop, which are suitable for low power and high-speed applications. Customers can choose chips of different specifications according to the requirements of current, forward conduction voltage drop, breakdown voltage and junction temperature. In addition, NEDITEK can also develop and produce Power SBD according to customer's requirements.

- Full range of current and voltage options: 0.1A~100A, 10V~250V.
- Five categories of products with three types of Tj are available, in achieving the balance between forward voltage drop and reverse leakage current.
- Conventional chip thickness: 280μm. Different chip thickness according to the requirements of package: 150μm~280μm.
- High ESD and IFSM.
- Silicon dioxide and field limiting ring technology provide excellent overvoltage protection.
- Develop and produce Power SBD according to customer's requirements.
- Different forms of shipment: Wafer、Sawn on Foil、Dies in Bottle.

Selection Table for Power SBD（Ta=25℃）

SEQ	Parameter	I_F	V_{RRM}	I_R@V_R	V_F@I_F		I_{FSM}	T_j	Chip Size
	Unit	[A]	[V]	[μA]	[V]	[V]	[A]	[℃]	[μm*μm]
	Product	Spec	Spec	Max	Max	Typ	Spec	Max	
1	NDGY03001	1	105	5	0.85	0.81	30	175	670*670
2	NDGY03002	1	105	5	0.85	0.81	30	175	670*670
3	NDGY03003	1	20	20	0.48	0.45	30	125	705*705
4	NDGY03004	1	45	20	0.55	0.52	30	125	705*705
5	NDGY03005	1	45	10	0.57	0.55	30	150	705*705
6	NDGY03006	1	65	20	0.67	0.63	30	125	705*705
7	NDGY03007	1	65	10	0.68	0.65	30	150	705*705
8	NDGY03008	1	105	5	0.83	0.81	30	175	705*705
9	NDGY03009	1	105	5	0.83	0.81	30	175	705*705
10	NDGY03010	1	105	5	0.83	0.81	30	175	705*705
11	NDGY03011	1	105	5	0.83	0.81	30	175	705*705
12	NDGY03012	1	20	20	0.45	0.43	40	150	813*813
13	NDGY03013	1	45	30	0.5	0.48	40	125	813*813
14	NDGY03014	1	45	10	0.53	0.5	40	150	813*813
15	NDGY03015	1	45	10	0.52	0.49	40	150	813*813
16	NDGY03016	1	45	10	0.52	0.49	40	150	813*813
17	NDGY03017	1	45	10	0.52	0.49	40	150	813*813
18	NDGY03018	1	65	10	0.63	0.59	40	150	813*813
19	NDGY03019	1	65	5	0.7	0.67	40	175	813*813
20	NDGY03020	1	105	5	0.8	0.77	40	175	813*813
21	NDGY03021	1	105	5	0.8	0.77	40	175	813*813
22	NDGY03022	1	105	5	0.78	0.75	40	175	813*813
23	NDGY03023	1	155	5	0.84	0.81	40	175	813*813
24	NDGY03024	1	155	5	0.84	0.81	40	175	813*813

Selection Table for Power SBD（Ta=25℃）

SEQ	Parameter	I_F	V_{RRM}	I_R@V_R	V_F@I_F		I_{FSM}	T_j	Chip Size
	Unit	[A]	[V]	[μA]	[V]	[V]	[A]	[℃]	[μm*μm]
	Product	Spec	Spec	Max	Max	Typ	Spec	Max	
25	NDGY03025	1	205	5	0.86	0.83	40	175	813*813
26	NDGY03026	1	205	5	0.86	0.83	40	175	813*813
27	NDGY03027	2	45	20	0.55	0.53	45	150	900*900
28	NDGY03028	2	105	5	0.84	0.81	45	175	900*900
29	NDGY03029	2	45	30	0.53	0.5	50	125	990*990
30	NDGY03030	2	45	20	0.54	0.52	50	150	990*990
31	NDGY03031	2	65	50	0.66	0.63	50	125	990*990
32	NDGY03032	2	65	50	0.65	0.61	50	125	990*990
33	NDGY03033	2	65	20	0.66	0.63	50	150	990*990
34	NDGY03034	2	65	20	0.66	0.63	50	150	1010*1010
35	NDGY03035	2	65	15	0.68	0.65	50	150	1010*1010
36	NDGY03036	2	65	10	0.68	0.65	50	150	1010*1010
37	NDGY03037	2	75	20	0.72	0.68	50	150	1010*1010
38	NDGY03038	2	105	5	0.82	0.79	50	175	990*990
39	NDGY03039	2	105	5	0.82	0.79	50	175	990*990
40	NDGY03040	2	105	5	0.82	0.79	50	175	990*990
41	NDGY03041	2	105	5	0.82	0.79	50	175	1010*1010
42	NDGY03042	2	105	2	0.82	0.79	50	175	990*990
43	NDGY03043	2	155	5	0.87	0.83	50	175	990*990
44	NDGY03044	2	155	2	0.87	0.83	50	175	990*990
45	NDGY03045	2	205	5	0.88	0.85	50	175	990*990
46	NDGY03046	2	205	5	0.88	0.85	50	175	990*990
47	NDGY03047	2	205	2	0.88	0.85	50	175	990*990
48	NDGY03048	2	48	30	0.52	0.49	50	125	1120*1120

Selection Table for Power SBD（Ta=25℃）

SEQ	Parameter	I_F	V_{RRM}	I_R@V_R	V_F@I_F		I_{FSM}	T_j	Chip Size
	Unit	[A]	[V]	[μA]	[V]	[V]	[A]	[℃]	[μm*μm]
	Product	Spec	Spec	Max	Max	Typ	Spec	Max	
49	NDGY03049	2	45	30	0.49	0.47	50	125	1120*1120
50	NDGY03050	2	45	20	0.53	0.5	50	150	1120*1120
51	NDGY03051	2	45	20	0.53	0.5	50	150	1120*1120
52	NDGY03052	2	45	20	0.52	0.48	50	150	1120*1120
53	NDGY03053	2	65	50	0.6	0.57	50	125	1120*1120
54	NDGY03054	2	65	20	0.63	0.59	50	150	1120*1120
55	NDGY03055	2	65	20	0.63	0.59	50	150	1120*1120
56	NDGY03056	2	65	5	0.7	0.67	50	175	1120*1120
57	NDGY03057	2	105	5	0.8	0.78	50	175	1120*1120
58	NDGY03058	2	105	5	0.8	0.77	50	175	1120*1120
59	NDGY03059	2	105	5	0.8	0.77	50	175	1120*1120
60	NDGY03060	2	105	2	0.8	0.77	50	175	1120*1120
61	NDGY03061	2	155	5	0.84	0.81	50	175	1140*1140
62	NDGY03062	2	155	2	0.84	0.81	50	175	1140*1140
63	NDGY03063	2	205	5	0.86	0.83	50	175	1140*1140
64	NDGY03064	2	205	2	0.86	0.83	50	175	1140*1140
65	NDGY03065	3	45	50	0.54	0.5	60	125	1240*1240
66	NDGY03066	3	45	52	0.54	0.5	60	125	1240*1240
67	NDGY03067	3	45	20	0.55	0.53	60	150	1240*1240
68	NDGY03068	3	45	10	0.59	0.55	60	150	1240*1240
69	NDGY03069	3	65	50	0.64	0.6	60	125	1240*1240
70	NDGY03070	3	65	50	0.64	0.6	60	125	1240*1240
71	NDGY03071	3	65	20	0.67	0.64	60	150	1240*1240
72	NDGY03072	3	65	20	0.67	0.64	60	150	1240*1240

Selection Table for Power SBD（Ta=25℃）

SEQ	Parameter	I_F	V_{RRM}	I_R@V_R	V_F@I_F		I_{FSM}	T_j	Chip Size
	Unit	[A]	[V]	[μA]	[V]	[V]	[A]	[℃]	[μm*μm]
	Product	Spec	Spec	Max	Max	Typ	Spec	Max	
73	NDGY03073	3	65	15	0.68	0.64	60	150	1240*1240
74	NDGY03074	3	65	10	0.67	0.64	60	150	1240*1240
75	NDGY03075	3	105	5	0.82	0.79	60	175	1240*1240
76	NDGY03076	3	105	5	0.82	0.79	60	175	1240*1240
77	NDGY03077	3	105	2	0.82	0.79	60	175	1240*1240
78	NDGY03078	3	155	5	0.85	0.82	60	175	1240*1240
79	NDGY03079	3	155	2	0.85	0.82	60	175	1240*1240
80	NDGY03080	3	205	5	0.88	0.84	60	175	1240*1240
81	NDGY03081	3	205	5	0.88	0.84	60	175	1240*1240
82	NDGY03082	3	205	2	0.88	0.84	60	175	1240*1240
83	NDGY03083	3	45	50	0.52	0.48	80	125	1400*1400
84	NDGY03084	3	45	50	0.51	0.47	80	125	1400*1400
85	NDGY03085	3	45	20	0.54	0.5	80	150	1400*1400
86	NDGY03086	3	45	20	0.54	0.5	80	150	1400*1400
87	NDGY03087	3	45	20	0.52	0.48	80	150	1400*1400
88	NDGY03088	3	45	15	0.56	0.52	80	150	1400*1400
89	NDGY03089	3	45	10	0.56	0.52	80	150	1400*1400
90	NDGY03090	3	50	50	0.52	0.49	80	125	1400*1400
91	NDGY03091	3	65	50	0.6	0.57	80	125	1400*1400
92	NDGY03092	3	65	20	0.62	0.59	80	150	1400*1400
93	NDGY03093	3	65	20	0.62	0.59	80	150	1400*1400
94	NDGY03094	3	65	15	0.64	0.6	80	150	1400*1400
95	NDGY03095	3	65	10	0.63	0.6	80	150	1400*1400
96	NDGY03096	3	105	5	0.8	0.76	80	175	1400*1400

Selection Table for Power SBD（Ta=25℃）

SEQ	Parameter	I_F	V_{RRM}	I_R@V_R	V_F@I_F		I_{FSM}	T_j	Chip Size
	Unit	[A]	[V]	[μA]	[V]	[V]	[A]	[℃]	[μm*μm]
	Product	Spec	Spec	Max	Max	Typ	Spec	Max	
97	NDGY03097	3	105	5	0.8	0.76	80	175	1400*1400
98	NDGY03098	3	105	2	0.8	0.76	80	175	1400*1400
99	NDGY03099	3	155	5	0.84	0.81	80	175	1400*1400
100	NDGY03100	3	155	5	0.84	0.81	80	175	1400*1400
101	NDGY03101	3	155	2	0.84	0.81	80	175	1400*1400
102	NDGY03102	3	205	5	0.86	0.82	80	175	1400*1400
103	NDGY03103	3	205	5	0.86	0.82	80	175	1400*1400
104	NDGY03104	3	205	2	0.86	0.82	80	175	1400*1400
105	NDGY03105	3	45	50	0.49	0.47	80	125	1520*1520
106	NDGY03106	3	45	50	0.48	0.45	80	125	1520*1520
107	NDGY03107	3	45	80	0.46	0.43	80	125	1520*1520
108	NDGY03108	3	45	30	0.52	0.49	80	150	1520*1520
109	NDGY03109	3	45	20	0.53	0.5	80	150	1520*1520
110	NDGY03110	3	45	15	0.54	0.5	80	150	1520*1520
111	NDGY03111	3	65	50	0.58	0.54	80	125	1520*1520
112	NDGY03112	3	65	30	0.6	0.56	80	150	1520*1520
113	NDGY03113	3	65	20	0.61	0.57	80	150	1520*1520
114	NDGY03114	3	65	15	0.6	0.57	80	150	1520*1520
115	NDGY03115	3	105	5	0.78	0.75	80	175	1520*1520
116	NDGY03116	3	105	5	0.78	0.75	80	175	1520*1520
117	NDGY03117	3	105	5	0.76	0.73	80	175	1520*1520
118	NDGY03118	3	105	2	0.78	0.75	80	175	1520*1520
119	NDGY03119	3	105	2	0.78	0.75	80	175	1520*1520
120	NDGY03120	3	105	2	0.76	0.73	80	175	1520*1520

Selection Table for Power SBD（Ta=25℃）

SEQ	Parameter	I_F	V_{RRM}	I_R@V_R	V_F@I_F		I_{FSM}	T_j	Chip Size
	Unit	[A]	[V]	[μA]	[V]	[V]	[A]	[℃]	[μm*μm]
	Product	Spec	Spec	Max	Max	Typ	Spec	Max	
121	NDGY03121	3	155	5	0.82	0.79	80	175	1520*1520
122	NDGY03122	3	155	2	0.82	0.79	80	175	1520*1520
123	NDGY03123	3	155	2	0.82	0.79	80	175	1520*1520
124	NDGY03124	3	155	2	0.82	0.79	80	175	1520*1520
125	NDGY03125	3	205	5	0.84	0.81	80	175	1520*1520
126	NDGY03126	3	205	5	0.84	0.81	80	175	1520*1520
127	NDGY03127	3	205	2	0.84	0.81	80	175	1520*1520
128	NDGY03128	3	205	2	0.84	0.81	80	175	1520*1520
129	NDGY03129	5	45	60	0.54	0.51	100	125	1600*1600
130	NDGY03130	5	45	30	0.55	0.52	100	150	1600*1600
131	NDGY03131	5	65	50	0.63	0.61	100	125	1600*1600
132	NDGY03132	5	65	30	0.66	0.62	100	150	1600*1600
133	NDGY03133	5	105	5	0.82	0.78	100	175	1600*1600
134	NDGY03134	5	105	5	0.82	0.78	100	175	1600*1600
135	NDGY03135	5	105	2	0.82	0.78	100	175	1600*1600
136	NDGY03136	5	105	2	0.82	0.78	100	175	1600*1600
137	NDGY03137	5	155	5	0.85	0.83	100	175	1600*1600
138	NDGY03138	5	155	2	0.85	0.83	100	175	1600*1600
139	NDGY03139	5	205	5	0.88	0.84	100	175	1600*1600
140	NDGY03140	5	205	2	0.88	0.84	100	175	1600*1600
141	NDGY03141	5	45	70	0.52	0.49	125	125	1680*1680
142	NDGY03142	5	45	70	0.49	0.47	125	125	1680*1680
143	NDGY03143	5	45	30	0.54	0.51	125	150	1680*1680
144	NDGY03144	5	45	25	0.55	0.52	125	150	1680*1680

Selection Table for Power SBD（Ta=25℃）

SEQ	Parameter	I_F	V_{RRM}	I_R@V_R	V_F@I_F		I_{FSM}	T_j	Chip Size
	Unit	[A]	[V]	[μA]	[V]	[V]	[A]	[℃]	[μm*μm]
	Product	Spec	Spec	Max	Max	Typ	Spec	Max	
145	NDGY03145	5	45	20	0.56	0.53	125	150	1680*1680
146	NDGY03146	5	65	30	0.65	0.61	125	150	1680*1680
147	NDGY03147	5	65	20	0.65	0.61	125	150	1680*1680
148	NDGY03148	5	65	15	0.66	0.62	125	150	1680*1680
149	NDGY03149	5	105	5	0.81	0.77	125	175	1680*1680
150	NDGY03150	5	105	2	0.81	0.77	125	175	1680*1680
151	NDGY03151	5	155	5	0.85	0.82	125	175	1680*1680
152	NDGY03152	5	155	2	0.85	0.82	125	175	1680*1680
153	NDGY03153	5	205	5	0.86	0.83	125	175	1680*1680
154	NDGY03154	5	205	2	0.86	0.83	125	175	1680*1680
155	NDGY03155	5	45	70	0.52	0.49	125	125	1730*1730
156	NDGY03156	5	45	70	0.49	0.47	125	125	1730*1730
157	NDGY03157	5	45	30	0.54	0.5	125	150	1730*1730
158	NDGY03158	5	45	30	0.54	0.5	125	150	1730*1730
159	NDGY03159	5	45	25	0.55	0.51	125	150	1730*1730
160	NDGY03160	5	45	20	0.56	0.52	125	150	1730*1730
161	NDGY03161	5	65	70	0.62	0.57	125	150	1730*1730
162	NDGY03162	5	65	30	0.63	0.59	125	150	1730*1730
163	NDGY03163	5	65	30	0.63	0.59	125	150	1730*1730
164	NDGY03164	5	65	30	0.6	0.55	125	150	1730*1730
165	NDGY03165	5	65	25	0.64	0.6	125	150	1730*1730
166	NDGY03166	5	65	20	0.63	0.59	125	150	1730*1730
167	NDGY03167	5	65	5	0.7	0.66	125	175	1730*1730
168	NDGY03168	5	105	5	0.8	0.77	125	175	1730*1730

Selection Table for Power SBD（Ta=25℃）

SEQ	Parameter	I_F	V_{RRM}	I_R@V_R	V_F@I_F		I_{FSM}	T_j	Chip Size
	Unit	[A]	[V]	[μA]	[V]	[V]	[A]	[℃]	[μm*μm]
	Product	Spec	Spec	Max	Max	Typ	Spec	Max	
169	NDGY03169	5	105	5	0.8	0.77	125	175	1730*1730
170	NDGY03170	5	105	2	0.8	0.77	125	175	1730*1730
171	NDGY03171	5	105	2	0.8	0.77	125	175	1730*1730
172	NDGY03172	5	155	5	0.84	0.81	125	175	1730*1730
173	NDGY03173	5	155	5	0.84	0.81	125	175	1730*1730
174	NDGY03174	5	155	2	0.84	0.8	125	175	1730*1730
175	NDGY03175	5	155	2	0.84	0.8	125	175	1730*1730
176	NDGY03176	5	205	5	0.86	0.83	125	175	1730*1730
177	NDGY03177	5	205	5	0.86	0.83	125	175	1730*1730
178	NDGY03178	5	205	2	0.86	0.83	125	175	1730*1730
179	NDGY03179	5	205	2	0.86	0.83	125	175	1730*1730
180	NDGY03180	5	45	150	0.47	0.44	150	125	1830*1830
181	NDGY03181	5	45	30	0.52	0.47	150	150	1830*1830
182	NDGY03182	5	65	40	0.62	0.57	150	150	1830*1830
183	NDGY03183	5	105	5	0.79	0.76	150	175	1830*1830
184	NDGY03184	5	105	5	0.75	0.73	150	175	1830*1830
185	NDGY03185	5	105	2	0.79	0.76	150	175	1830*1830
186	NDGY03186	5	105	2	0.75	0.73	150	175	1830*1830
187	NDGY03187	5	155	5	0.83	0.79	150	175	1830*1830
188	NDGY03188	5	155	2	0.83	0.79	150	175	1830*1830
189	NDGY03189	5	205	5	0.84	0.81	150	175	1830*1830
190	NDGY03190	5	205	2	0.84	0.81	150	175	1830*1830
191	NDGY03191	10	45	80	0.55	0.51	150	125	2040*2040
192	NDGY03192	10	45	50	0.58	0.55	150	150	2040*2040

Selection Table for Power SBD（Ta=25℃）

SEQ	Parameter	I_F	V_{RRM}	I_R@V_R	V_F@I_F		I_{FSM}	T_j	Chip Size
	Unit	[A]	[V]	[μA]	[V]	[V]	[A]	[℃]	[μm*μm]
	Product	Spec	Spec	Max	Max	Typ	Spec	Max	
193	NDGY03193	10	65	70	0.7	0.66	150	125	2040*2040
194	NDGY03194	10	105	50	0.87	0.85	150	150	2040*2040
195	NDGY03195	10	105	5	0.82	0.78	150	175	2040*2040
196	NDGY03196	10	105	5	0.82	0.78	150	175	2040*2040
197	NDGY03197	10	105	2	0.82	0.78	150	175	2040*2040
198	NDGY03198	10	105	2	0.82	0.78	150	175	2040*2040
199	NDGY03199	10	155	2	0.88	0.84	150	175	2040*2040
200	NDGY03200	10	205	5	0.9	0.86	150	175	2040*2040
201	NDGY03201	10	205	5	0.9	0.86	150	175	2040*2040
202	NDGY03202	10	205	5	0.9	0.86	150	175	2040*2040
203	NDGY03203	10	205	2	0.9	0.86	150	175	2040*2040
204	NDGY03204	10	45	2	0.58	0.55	150	150	2110*2110
205	NDGY03205	10	65	50	0.68	0.65	150	150	2110*2110
206	NDGY03206	10	45	50	0.55	0.51	150	125	2210*2210
207	NDGY03207	10	45	80	0.54	0.5	150	125	2210*2210
208	NDGY03208	10	45	80	0.58	0.54	150	150	2210*2210
209	NDGY03209	10	45	50	0.58	0.54	150	150	2210*2210
210	NDGY03210	10	45	50	0.59	0.55	150	150	2210*2210
211	NDGY03211	10	45	40	0.59	0.55	150	150	2210*2210
212	NDGY03212	10	50	25	0.57	0.53	150	150	2210*2210
213	NDGY03213	10	65	50	0.68	0.64	150	150	2210*2210
214	NDGY03214	10	65	50	0.68	0.64	150	150	2210*2210
215	NDGY03215	10	65	50	0.64	0.6	150	150	2210*2210
216	NDGY03216	10	65	40	0.68	0.64	150	150	2210*2210

Selection Table for Power SBD（Ta=25℃）

SEQ	Parameter	I_F	V_{RRM}	I_R@V_R	V_F@I_F		I_{FSM}	T_j	Chip Size
	Unit	[A]	[V]	[μA]	[V]	[V]	[A]	[℃]	[μm*μm]
	Product	Spec	Spec	Max	Max	Typ	Spec	Max	
217	NDGY03217	10	65	25	0.67	0.63	150	150	2210*2210
218	NDGY03218	10	105	5	0.82	0.79	150	175	2210*2210
219	NDGY03219	10	105	5	0.82	0.79	150	175	2210*2210
220	NDGY03220	10	105	2	0.82	0.79	150	175	2210*2210
221	NDGY03221	10	105	2	0.82	0.79	150	175	2210*2210
222	NDGY03222	10	155	5	0.86	0.83	150	175	2210*2210
223	NDGY03223	10	155	5	0.86	0.83	150	175	2210*2210
224	NDGY03224	10	155	5	0.86	0.83	150	175	2210*2210
225	NDGY03225	10	155	2	0.86	0.83	150	175	2210*2210
226	NDGY03226	10	155	2	0.86	0.83	150	175	2210*2210
227	NDGY03227	10	205	5	0.88	0.85	150	175	2210*2210
228	NDGY03228	10	205	5	0.88	0.85	150	175	2210*2210
229	NDGY03229	10	205	5	0.88	0.85	150	175	2210*2210
230	NDGY03230	10	205	2	0.88	0.85	150	175	2210*2210
231	NDGY03231	10	205	2	0.88	0.85	150	175	2210*2210
232	NDGY03232	10	45	100	0.5	0.47	200	125	2480*2480
233	NDGY03233	10	45	80	0.52	0.49	200	150	2480*2480
234	NDGY03234	10	45	50	0.58	0.54	200	150	2480*2480
235	NDGY03235	10	50	100	0.52	0.49	200	125	2480*2480
236	NDGY03236	10	65	100	0.62	0.57	200	125	2480*2480
237	NDGY03237	10	65	50	0.66	0.6	200	150	2480*2480
238	NDGY03238	10	105	5	0.8	0.76	200	175	2480*2480
239	NDGY03239	10	105	5	0.8	0.76	200	175	2480*2480
240	NDGY03240	10	105	2	0.8	0.76	200	175	2480*2480

Selection Table for Power SBD（Ta=25℃）

SEQ	Parameter	I_F	V_{RRM}	I_R@V_R	V_F@I_F		I_{FSM}	T_j	Chip Size
	Unit	[A]	[V]	[μA]	[V]	[V]	[A]	[℃]	[μm*μm]
	Product	Spec	Spec	Max	Max	Typ	Spec	Max	
241	NDGY03241	10	105	2	0.8	0.76	200	175	2480*2480
242	NDGY03242	10	205	5	0.86	0.83	200	175	2480*2480
243	NDGY03243	10	205	5	0.86	0.83	200	175	2480*2480
244	NDGY03244	10	205	2	0.86	0.83	200	175	2480*2480
245	NDGY03245	10	205	2	0.86	0.83	200	175	2480*2480
246	NDGY03246	10	50	100	0.52	0.48	200	125	2670*2670
247	NDGY03247	10	50	70	0.54	0.5	200	150	2670*2670
248	NDGY03248	15	45	80	0.55	0.51	250	150	3048*3048
249	NDGY03249	15	105	5	0.82	0.77	250	175	3048*3048
250	NDGY03250	15	105	5	0.77	0.74	250	175	3048*3048
251	NDGY03251	15	105	2	0.82	0.77	250	175	3048*3048
252	NDGY03252	15	105	2	0.77	0.74	250	175	3048*3048
253	NDGY03253	15	155	5	0.86	0.82	250	175	3048*3048
254	NDGY03254	15	155	5	0.86	0.82	250	175	3048*3048
255	NDGY03255	15	155	5	0.86	0.82	250	175	3048*3048
256	NDGY03256	15	155	2	0.86	0.82	250	175	3048*3048
257	NDGY03257	15	155	2	0.86	0.82	250	175	3048*3048
258	NDGY03258	15	205	5	0.88	0.84	250	175	3048*3048
259	NDGY03259	15	205	5	0.88	0.84	250	175	3048*3048
260	NDGY03260	15	205	2	0.88	0.84	250	175	3048*3048
261	NDGY03261	15	205	2	0.88	0.84	250	175	3048*3048
262	NDGY03262	15	45	130	0.5	0.47	250	150	3300*3300
263	NDGY03263	15	45	130	0.52	0.48	250	150	3300*3300
264	NDGY03264	20	155	5	0.86	0.82	300	175	4010*4010

Selection Table for Power SBD（Ta=25℃）

SEQ	Parameter	I_F	V_{RRM}	I_R@V_R	V_F@I_F		I_{FSM}	T_j	Chip Size
	Unit	[A]	[V]	[μA]	[V]	[V]	[A]	[℃]	[μm*μm]
	Product	Spec	Spec	Max	Max	Typ	Spec	Max	
265	NDGY03265	20	155	2	0.86	0.82	300	175	4010*4010
266	NDGY03266	100	105	20	-	0.8	800	175	6980*6980
267	NDGY03267	100	105	20	-	0.8	800	175	6980*6980
268	NDGY03268	100	205	20	-	0.88	800	175	6980*6980
269	NDGY03269	100	205	20	-	0.88	800	175	6980*6980
270	NDGY03270	5*2	45	50	0.55	0.52	80	125	2110*2110
271	NDGY03271	5*2	65	50	0.68	0.64	80	150	2110*2110
272	NDGY03272	5*2	105	5	0.82	0.78	80	175	2110*2110
273	NDGY03273	5*2	105	2	0.82	0.78	80	175	2110*2110
274	NDGY03274	5*2	155	5	0.86	0.83	80	175	2110*2110
275	NDGY03275	5*2	155	2	0.86	0.83	80	175	2110*2110
276	NDGY03276	5*2	205	5	0.89	0.85	80	175	2110*2110
277	NDGY03277	5*2	205	2	0.89	0.85	80	175	2110*2110
278	NDGY03278	5*2	45	50	0.54	0.52	100	125	2185*2185
279	NDGY03279	5*2	65	50	0.68	0.64	100	150	2185*2185
280	NDGY03280	5*2	105	5	0.8	0.77	100	175	2185*2185
281	NDGY03281	5*2	105	2	0.8	0.77	100	175	2185*2185
282	NDGY03282	5*2	155	5	0.85	0.83	100	175	2185*2185
283	NDGY03283	5*2	155	2	0.85	0.83	100	175	2185*2185
284	NDGY03284	5*2	205	5	0.88	0.85	100	175	2185*2185
285	NDGY03285	5*2	205	2	0.88	0.85	100	175	2185*2185
286	NDGY03286	10*2	45	50	0.6	0.57	150	150	2600*2600
287	NDGY03287	10*2	65	50	0.73	0.68	150	150	2600*2600
288	NDGY03288	10*2	105	5	0.84	0.8	150	175	2600*2600

Selection Table for Power SBD（Ta=25℃）

SEQ	Parameter	I_F	V_{RRM}	I_R@V_R	V_F@I_F		I_{FSM}	T_j	Chip Size
	Unit	[A]	[V]	[μA]	[V]	[V]	[A]	[℃]	[μm*μm]
	Product	Spec	Spec	Max	Max	Typ	Spec	Max	
289	NDGY03289	10*2	105	2	0.84	0.8	150	175	2600*2600
290	NDGY03290	10*2	155	5	0.9	0.86	150	175	2600*2600
291	NDGY03291	10*2	155	2	0.9	0.86	150	175	2600*2600
292	NDGY03292	10*2	205	5	0.92	0.88	150	175	2600*2600
293	NDGY03293	10*2	205	2	0.92	0.88	150	175	2600*2600
294	NDGY03294	15*2	45	70	0.63	0.57	200	125	3100*3100
295	NDGY03295	15*2	45	50	0.64	0.61	200	150	3100*3100
296	NDGY03296	15*2	65	50	0.74	0.69	200	150	3100*3100
297	NDGY03297	15*2	105	5	0.84	0.8	200	175	3100*3100
298	NDGY03298	15*2	105	2	0.84	0.8	200	175	3100*3100
299	NDGY03299	15*2	155	5	0.9	0.86	200	175	3100*3100
300	NDGY03300	15*2	155	2	0.9	0.86	200	175	3100*3100
301	NDGY03301	15*2	205	5	0.93	0.89	200	175	3100*3100
302	NDGY03302	15*2	205	2	0.93	0.89	200	175	3100*3100
303	NDGY03303	15*2	45	80	0.56	0.62	250	150	3580*3580
304	NDGY03304	15*2	65	80	0.7	0.66	250	150	3580*3580
305	NDGY03305	15*2	105	5	0.82	0.76	250	175	3580*3580
306	NDGY03306	15*2	105	2	0.82	0.76	250	175	3580*3580
307	NDGY03307	15*2	155	5	0.88	0.84	250	175	3580*3580
308	NDGY03308	15*2	155	2	0.88	0.84	250	175	3580*3580
309	NDGY03309	15*2	205	5	0.89	0.85	250	175	3580*3580
310	NDGY03310	15*2	205	2	0.89	0.85	250	175	3580*3580

Small Signal Schottky Barrier Diodes

Small signal Schottky barrier diodes have the advantages of high switching speed and low forward voltage drop, which are suitable for small signal and high-speed applications. Customers can choose chips of different specifications according to the requirements of current, forward conduction voltage drop, breakdown voltage and junction temperature. In addition, NEDITEK can also develop and produce Small Signal SBD according to customer's requirements.

Selection Table for Power Small Signal SBD（Ta=25℃）

SEQ	Parameter	I_F	V_{RRM}	I_R@V_R	V_F@I_F		I_{FSM}	T_j	Chip Size
	Unit	[A]	[V]	[μA]	[V]	[V]	[A]	[℃]	[μm*μm]
	Product	Spec	Spec	Max	Max	Typ	Spec	Max	
1	NDGY04001	0.07	70	5	1@15mA	-	0.1	125	230*230
2	NDGY04002	0.2	30	5	1.0	-	1	125	350*350
3	NDGY04003	0.2	30	5	1.5	-	1	125	350*350
4	NDGY04004	0.2	30	5	1.5	-	1	125	350*350
5	NDGY04005	1	30	20	0.54	0.505	30	125	705*705
6	NDGY04006	1	30	20	0.54	0.505	30	125	705*705
7	NDGY04007	1	105	5	0.83	0.805	30	175	705*705
8	NDGY04008	1	20	20	0.45	0.425	40	150	813*813
9	NDGY04009	1	30	5	0.53	0.5	40	150	813*813

Trench MOS Barrier Schottky Diodes (TMBS)

TMBS with lower forward conduction voltage drop, play the roles of rectification, continuation and reverse protection in circuits. They're applied in the field of adapter, switching power supply, charger, solar cells, etc. Considering the cost, which can improve the efficiency of power conversion, reduce the heat loss and cut down the volume of the product.

Selection Table for TMBS Diodes

SEQ	Parameter	I_F	V_{RRM}	I_R@V_R	V_F@I_F		I_{FSM}	T_j	Chip Size	
	Unit	[A]	[V]	[μA]	[V]	[V]	[A]	[℃]	[μm*μm]	mil
	Product	Spec	Spec	Max	Max	Typ	Spec	Max		
1	NDGY05001	3 5	80	30	0.56 0.68	0.52 0.62	80	150	1500*1500	59
2	NDGY05002	3 5	80	30	0.56 0.70	0.53 0.64	80	150	1500*1500	59
3	NDGY05003	3 5	100	25	0.64 0.72	0.56 0.68	80	150	1500*1500	59
4	NDGY05004	3 5	100	20	0.65 0.74	0.57 0.70	80	150	1500*1500	59
5	NDGY05005	3 5	120	30	0.66 0.84	0.61 0.78	80	150	1500*1500	59
6	NDGY05006	3 5	120	30	0.66 0.85	0.62 0.79	80	150	1500*1500	59
7	NDGY05007	3 5	80	35	0.54 0.64	0.50 0.59	90	150	1635*1635	64
8	NDGY05008	3 5	80	35	0.54 0.66	0.51 0.61	90	150	1635*1635	64
9	NDGY05009	3 5	100	35	0.60 0.70	0.53 0.65	90	150	1635*1635	64
10	NDGY05010	3 5	100	35	0.60 0.72	0.54 0.67	90	150	1635*1635	64
11	NDGY05011	3 5	120	35	0.66 0.82	0.58 0.75	90	150	1635*1635	64
12	NDGY05012	3 5	120	35	0.66 0.83	0.59 0.76	90	150	1635*1635	64
13	NDGY05013	5 10	80	35	0.60 0.72	0.55 0.67	100	150	1800*1800	71
14	NDGY05014	5 10	80	35	0.60 0.72	0.56 0.69	100	150	1800*1800	71
15	NDGY05015	5 10	100	35	0.65 0.81	0.59 0.76	100	150	1800*1800	71
16	NDGY05016	5 10	100	35	0.65 0.82	0.60 0.78	100	150	1800*1800	71
17	NDGY05017	5 10	120	30	0.70 0.94	0.65 0.88	100	150	1800*1800	71
18	NDGY05018	5 10	120	30	0.70 0.96	0.66 0.90	100	150	1800*1800	71

Selection Table for TMBS Diodes

SEQ	Parameter	I_F	V_{RRM}	I_R@V_R	V_F@I_F		I_{FSM}	T_j	Chip Size	
	Unit	[A]	[V]	[μA]	[V]	[V]	[A]	[℃]	[μm*μm]	mil
	Product	Spec	Spec	Max	Max	Typ	Spec	Max		
19	NDGY05019	5 10	80	40	0.56 0.68	0.52 0.63	120	150	1930*1930	76
20	NDGY05020	5 10	80	40	0.56 0.70	0.53 0.65	120	150	1930*1930	76
21	NDGY05021	5 10	100	40	0.65 0.78	0.55 0.72	120	150	1930*1930	76
22	NDGY05022	5 10	100	40	0.66 0.80	0.56 0.74	120	150	1930*1930	76
23	NDGY05023	5 10	120	40	0.68 0.88	0.61 0.82	120	150	1930*1930	76
24	NDGY05024	5 10	120	40	0.69 0.90	0.62 0.84	120	150	1930*1930	76
25	NDGY05025	5 10	80	50	0.55 0.66	0.50 0.60	140	150	2090*2090	82
26	NDGY05026	5 10	80	50	0.56 0.68	0.51 0.62	140	150	2090*2090	82
27	NDGY05027	5 10	100	50	0.64 0.72	0.53 0.67	140	150	2090*2090	82
28	NDGY05028	5 10	100	50	0.65 0.74	0.54 0.69	140	150	2090*2090	82
29	NDGY05029	5 10	120	50	0.67 0.82	0.58 0.76	140	150	2090*2090	82
30	NDGY05030	5 10	120	50	0.68 0.84	0.59 0.78	140	150	2090*2090	82

Small Signal Switching Diodes

Small Signal Switching Diodes have the advantages of low reverse leakage current and high switching frequency, which are involved in radio、telecom and digital logic circuits. Customers can choose chips of different specifications according to the requirements of current, forward conduction voltage drop and breakdown voltage, etc. NEDITEK can also develop and produce Small Signal Switching Diodes according to customer's requirements.

Planar structure, low reverse leakage current, high reliability.

Low junction capacitance, fast switching speed.

Fast reverse recovery, for general purpose switching applications.

Selection Table for Small Signal Switching Diodes

SEQ	Parameter	V_R@100μA	V_R@10mA	V_R@100mA	I_{RI}@20V	I_{RI}@50V	Chip Size	Package
	Unit	[V]	[V]	[V]	[nA]	[μA]	[μm*μm]	
	Product	Min	Max	Max	Max	Max		
1	NDGY06001	100	1.0	1.2	30	0.1	260*260	Die
2	NDGY06002	100	1.0	1.2	30	0.1	260*260	Die
3	NDGY06003	100	1.0	1.2	30	0.1	260*260	Die

Transient Voltage Suppressor (TVS) Diodes

TVS diodes have the advantages of fast response, large transient power, low leakage current, easy control of clamping voltage, small volume and high reliability, which can be widely used in the field of high requirements for protective devices, such as household appliances, communication equipments and computer systems.

Selection Table for Transient Voltage Suppressor Diodes

SEQ	Parameter	V_{RR}@I_t			I_T	I_R@V_R		VF@10mA	T_j	Chip Size
	Unit	[V]			[mA]	[uA]	[V]	[A]	[℃]	[μm*μm]
	Product	Min	Typ	Max	-	Max	Spec	Max	Max	
1	NDGY07001	3.14	3.3	3.47	5	5	1	1.2	150	740*740
2	NDGY07002	3.14	3.3	3.47	5	5	1	1.2	150	840*840
3	NDGY07003	3.42	3.6	3.78	5	5	1	1.2	150	740*740
4	NDGY07004	3.42	3.6	3.78	5	5	1	1.2	150	840*840
5	NDGY07005	3.71	3.9	4.1	5	3	1	1.2	150	740*740
6	NDGY07006	3.71	3.9	4.1	5	3	1	1.2	150	840*840
7	NDGY07007	4.09	4.3	4.52	5	3	1	1.2	150	740*740
8	NDGY07008	4.09	4.3	4.52	5	3	1	1.2	150	840*840
9	NDGY07009	4.47	4.7	4.94	5	3	2	1.2	150	740*740
10	NDGY07010	4.47	4.7	4.94	5	3	2	1.2	150	840*840
11	NDGY07011	4.85	5.1	5.36	5	2	2	1.2	150	740*740
12	NDGY07012	4.85	5.1	5.36	5	2	2	1.2	150	840*840
13	NDGY07013	5.32	5.6	5.88	5	2	3.3	1.2	150	260*260
14	NDGY07014	5.32	5.6	5.88	5	1	2	1.2	150	740*740
15	NDGY07015	5.32	5.6	5.88	5	1	2	1.2	150	840*840
16	NDGY07016	5.89	6.2	6.51	5	3	4	1.2	150	740*740
17	NDGY07017	5.89	6.2	6.51	5	3	4	1.2	150	840*840
18	NDGY07018	6.46	6.8	7.14	5	2	4	1.2	150	260*260
19	NDGY07019	6.46	6.8	7.14	5	2	4	1.2	150	740*740
20	NDGY07020	6.46	6.8	7.14	5	2	4	1.2	150	840*840

Metal Insulator Semiconductor (MIS) Chip Capacitors

MIS chip capacitors have the advantages of low temperature coefficient, good consistency and high reliability, which are suitable for applications in radio and microwave circuits requiring DC blocks, coupling capacitors, bypass capacitors and filters.

Selection Table for MIS Chip Capacitors

SEQ	Parameter	V_R	C	R	I_R	Chip Size	Package
	Unit	[V]	[pF]	[MΩ]	[nA]	[μm*μm]	
	Product	Min	Typ	Min	Max		
1	NDGY08001	100	1.8	2000	50	340*340	Die
2	NDGY08002	100	2.6	2000	50	340*340	Die
3	NDGY08003	100	3.8	2000	50	340*340	Die
4	NDGY08004	100	5.6	2000	50	340*340	Die
5	NDGY08005	100	6.8	2000	50	340*340	Die
6	NDGY08006	100	10	2000	50	340*340	Die
7	NDGY08007	100	22	2000	50	380*380	Die
8	NDGY08008	100	8.2	2000	50	490*490	Die
9	NDGY08009	100	10	2000	50	490*490	Die
10	NDGY08010	100	15	2000	50	490*490	Die
11	NDGY08011	100	22	2000	50	490*490	Die
12	NDGY08012	100	33	2000	50	490*490	Die
13	NDGY08013	100	47	2000	50	490*490	Die
14	NDGY08014	100	68	2000	50	490*490	Die
15	NDGY08015	50	100	2000	50	490*490	Die
16	NDGY08016	100	100	2000	50	790*790	Die
17	NDGY08017	50	82	2000	50	1550*800	Die
18	NDGY08018	50	68	2000	50	1550*800	Die

Varactor Diodes

Varactor Diodes, utilizing silicon-based abrupt junction technology, have high Q value, high capacitance ratio and low resistance, which makes them especially suitable for the applications in Voltage Controlled Oscillators (VCO).

Selection Table for Varactor Diodes

SEQ	Parameter	V_R	I_F	I_R	$C_j@V_R$	$C_j@V_R$	C_{t1}/C_{t2}	R_S	Chip Size	Package
	Unit	[V]	[mA]	[nA]	[pF]	[pF]		[Ω]	[μm*μm]	
	Product	Min	Max	Max	-	-	Min	Typ		
1	NDGY09001	30	20	100	36~42@1V	2~3.2@25V	13.5	0.65@5V	400*400	Die
2	NDGY09002	15	-	100	6.4~7.2@1V	2.55~2.95@4V	2.2	0.6@1V	400*400	Die
3	NDGY09003	20	-	500	5.8~7.5@0V	0.4~2@20V	3.6	-	350*350	Die
4	NDGY09004	20	-	500	5.8~7.5@0V	0.4~2@20V	3.6	-	350*350	Die
5	NDGY09005	20	-	500	10~16@0V	3.5~5.3@20V	3.6	-	350*350	Die
6	NDGY09006	20	-	500	10~16@0V	3.5~5.3@20V	3.6	-	350*350	Die
7	NDGY09007	20	-	500	20~29@0V	6~9@20V	3.6	-	350*350	Die
8	NDGY09008	20	-	500	20~29@0V	6~9@20V	3.6	-	350*350	Die

RF PIN Diodes

RF PIN Diodes, with strictly controlled I-region, utilizing GPP passivation or multi-layer dielectric passivation technology, are ideal for the high performance RF and microwave circuits which require fast switching speed, high reverse breakdown voltage, large range of power control and low energy loss.

Selection Table for RF PIN Diodes

SEQ	Parameter	V_R	V_F	I_R	C_{tot}	$R_S@I_F$	$R_S@I_F$	τ	Chip Size	Package
	Unit	[V]	[mA]	[μA]	[pF]	[Ω]	[Ω]	[Ω]	[μm*μm]	
	Product	Min	Typ	Max	Max	Max	Typ	Typ		
1	NDGY10001	50	20	10	1.0@50V	1.5@1mA	0.5@10mA	0.4	400*400	SOD-323
2	NDGY10002	50	-	10	0.3@50V	0.9@10mA	2.0@1mA	0.4	400*400	SOD-323
3	NDGY10003	100	-	10	0.2@10V	6.5@1mA	-	-	300*300	SOD-323
4	NDGY10004	100	-	10	0.05@50V	2.0@10mA	-	-	380*380	Die
5	NDGY10005	200	-	1	0.06@10V	3.0@10mA	-	-	300*300	Die
6	NDGY10006	250	-	1	0.3@50V	0.8@50mA	-	-	550*550	Die
7	NDGY10007	500	-	1	0.5@38V	1@100mA	-	-	550*550	Die
8	NDGY10008	1000	-	1	0.6@100V	1@100mA	-	-	685*685	Die

RF Limiter Diodes

RF Limiter Diodes, utilizing the proven silicon-based PIN diodes technology, have fast switching speed, low energy loss and low power leakage to protect receiving systems from the potential damage from high power RF signals, and are widely used in high power RF control circuits.

Selection Table for RF Limiter Diodes

SEQ	Parameter	V_{BR}	C_j@0V	C_j@6V	R_s@10mA	τ@10mA	Chip Size	Package
	Unit	[V]	[pF]	[pF]	[Ω]	[ns]	[μm*μm]	
	Product	Min to Max	Typ	Max	Max	Typ		
1	NDGY11001	15 to 30	0.12	0.1	2.5	5	400*400	Die
2	NDGY11002	30 to 60	0.12	0.1	2.5	7	400*400	Die
3	NDGY11003	120 to 180	0.2	0.15@38V	2	50	380*380	Die

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Authorized Distributor Information

Note: All the data provided in this selection guide is subject to change without notice. The right is reserved to make changes to specifications and other information at any time.