

## Silicon Standard Recovery Diode

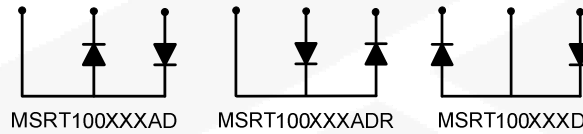
$V_{RRM} = 1200\text{ V} - 1600\text{ V}$

$I_{F(AV)} = 100\text{ A}$

### Features

- High Surge Capability
- Types from 1200 V to 1600 V  $V_{RRM}$
- Isolation Type Package
- Electrically Isolated Base Plate
- Not ESD Sensitive

Three Tower Package



### Maximum ratings, at $T_j = 25\text{ }^\circ\text{C}$ , unless otherwise specified

Parameter	Symbol	Conditions	MSRT100120(A)D	MSRT100140(A)D	MSRT100160(A)D	Unit
Repetitive peak reverse voltage	$V_{RRM}$		1200	1400	1600	V
RMS reverse voltage	$V_{RMS}$		848	990	1131	V
DC blocking voltage	$V_{DC}$		1200	1400	1600	V
Operating temperature	$T_j$		-55 to 150	-55 to 150	-55 to 150	$^\circ\text{C}$
Storage temperature	$T_{stg}$		-55 to 150	-55 to 150	-55 to 150	$^\circ\text{C}$

### Electrical characteristics, at $T_j = 25\text{ }^\circ\text{C}$ , unless otherwise specified

Parameter	Symbol	Conditions	MSRT100120(A)D	MSRT100140(A)D	MSRT100160(A)D	Unit
Average forward current (per leg)	$I_{F(AV)}$	$T_C = 140\text{ }^\circ\text{C}$	100	100	100	A
Peak forward surge current (per leg)	$I_{FSM}$	$t_p = 8.3\text{ ms}$ , half sine	2000	2000	2000	A
Maximum instantaneous forward voltage (per leg)	$V_F$	$I_{FM} = 100\text{ A}$ , $T_j = 25\text{ }^\circ\text{C}$	1.1	1.1	1.1	V
Maximum instantaneous reverse current at rated DC blocking voltage (per leg)	$I_R$	$T_j = 25\text{ }^\circ\text{C}$	10	10	10	$\mu\text{A}$
		$T_j = 150\text{ }^\circ\text{C}$	5	5	5	mA

### Thermal characteristics

Parameter	Symbol	Conditions	MSRT100120(A)D	MSRT100140(A)D	MSRT100160(A)D	Unit
Maximum thermal resistance, junction - case (per leg)	$R_{\theta jc}$		0.45	0.45	0.45	$^\circ\text{C/W}$

Figure .1- Typical Forward Characteristics

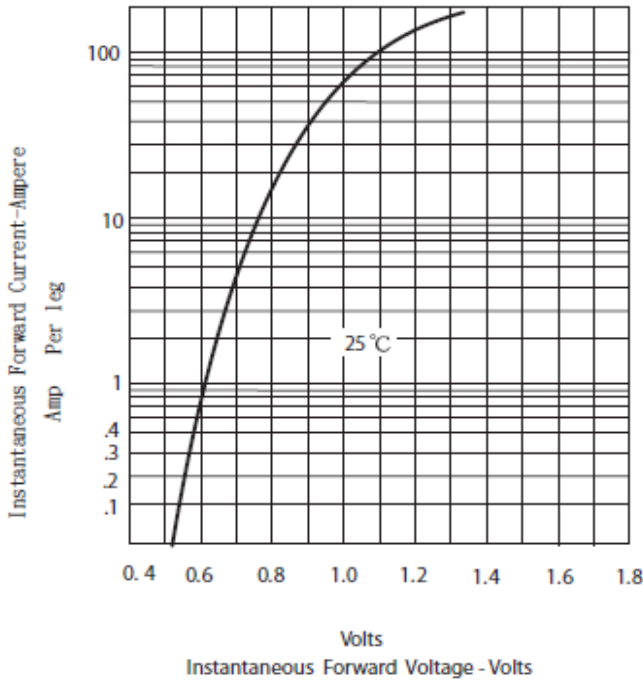


Figure.2 Forward Derating Curve

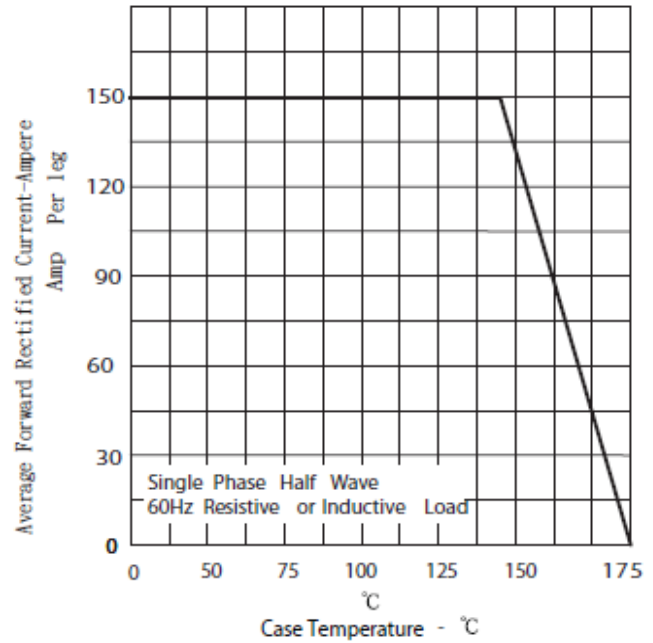


Figure 4 -Typical Reverse Characteristics

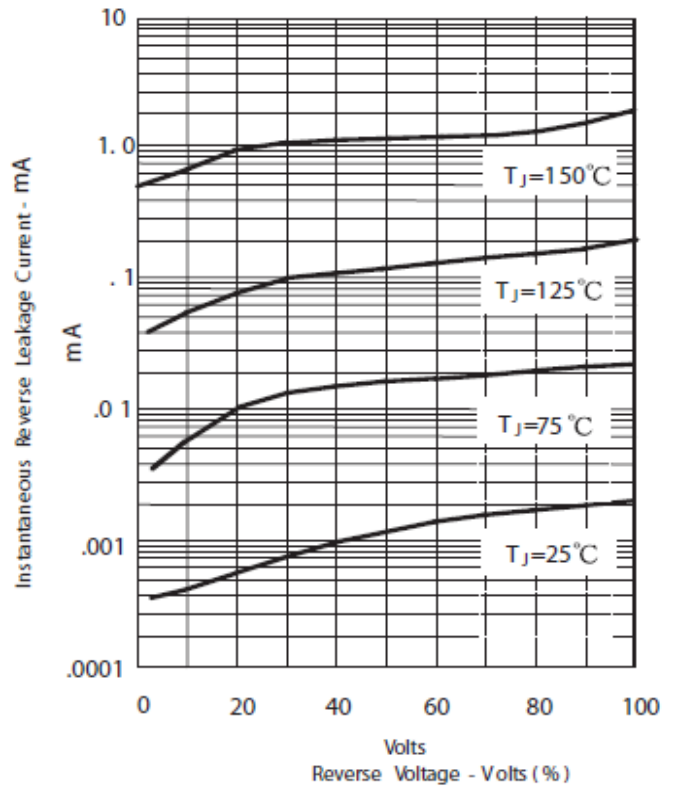
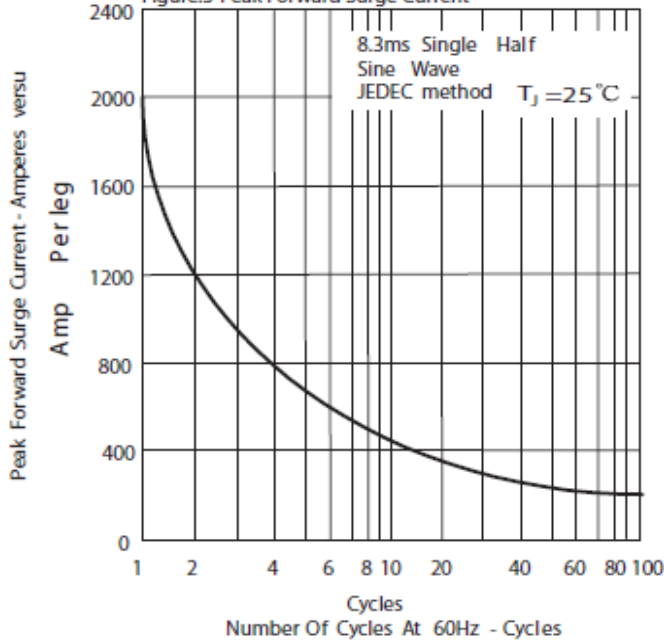
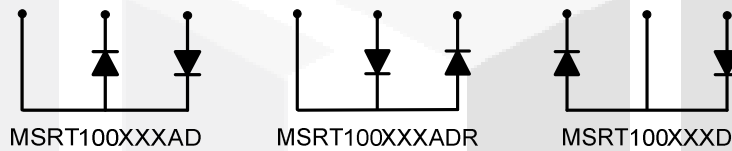
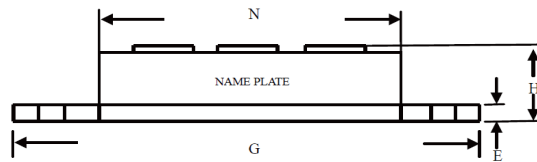
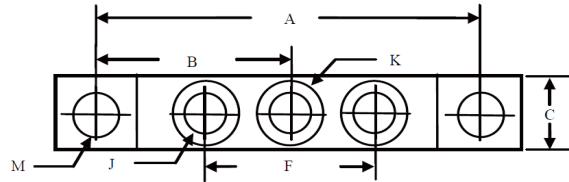


Figure.3-Peak Forward Surge Current



## Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



DIMENSIONS					
DIM	IN CHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	3.150	NOM	80.01	NOM	
B	1.565	1.585	39.75	40.26	
C	.700	.800	17.78	20.32	
E	.119	.132	3.02	3.35	
F	1.327	REF	33.72	REF	
G	3.55	3.65	90.17	92.71	
H	---	.73	---	18.30	
J	1/4 - 20 UNC FULL				
K	.472	.511	12	13	∅
M	.275	.295	6.99	7.49	∅
N	2.38	2.46	60.5	62.5	