

Silicon Standard Recovery Diode

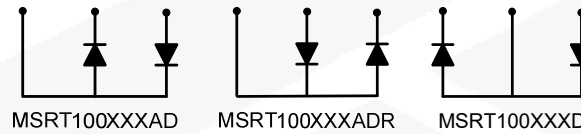
$V_{RRM} = 1200\text{ V} - 1600\text{ V}$

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

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	μA
		$T_j = 150\text{ }^\circ\text{C}$	5	5	5	mA

Thermal characteristics

Maximum thermal resistance, junction - case (per leg)	$R_{\theta jc}$		0.45	0.45	0.45	$^\circ\text{C/W}$
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Figure .1- Typical Forward Characteristics

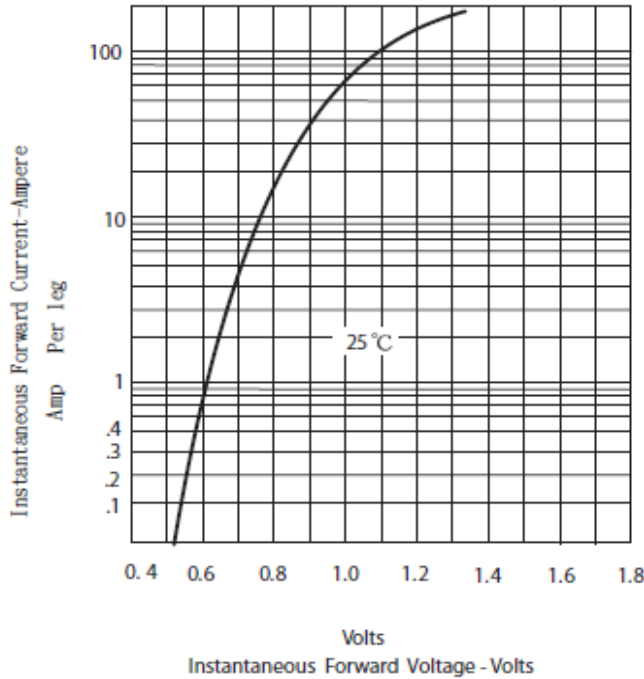


Figure.2 Forward Derating Curve

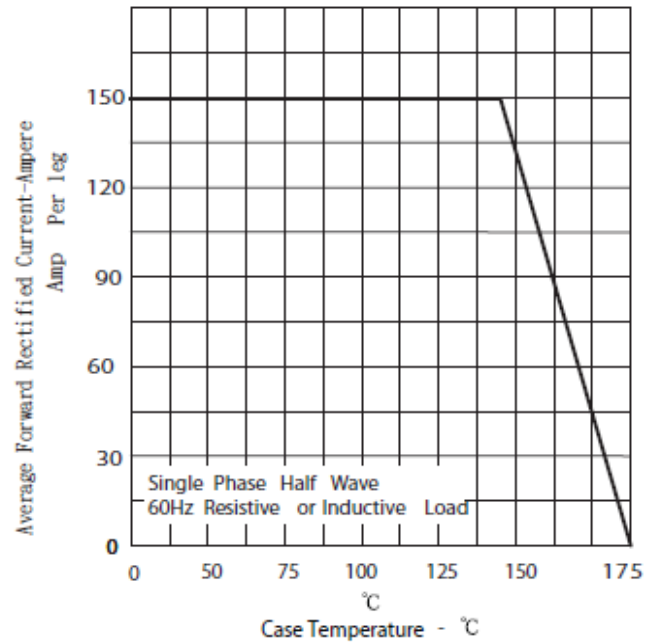


Figure .4 -Typical Reverse Characteristics

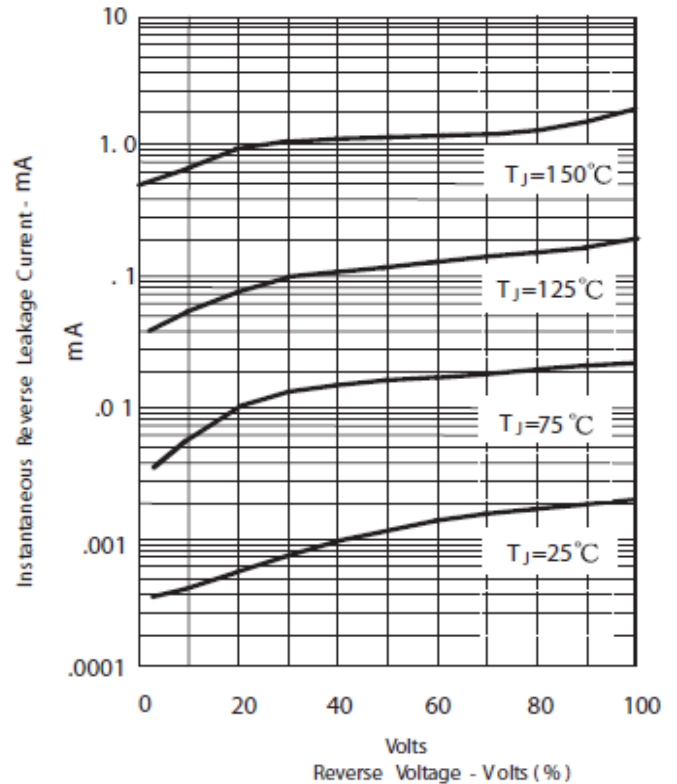
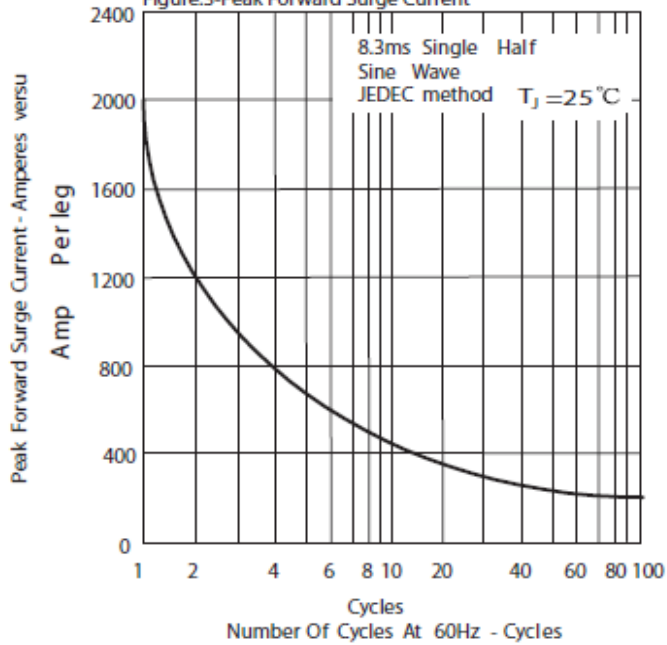
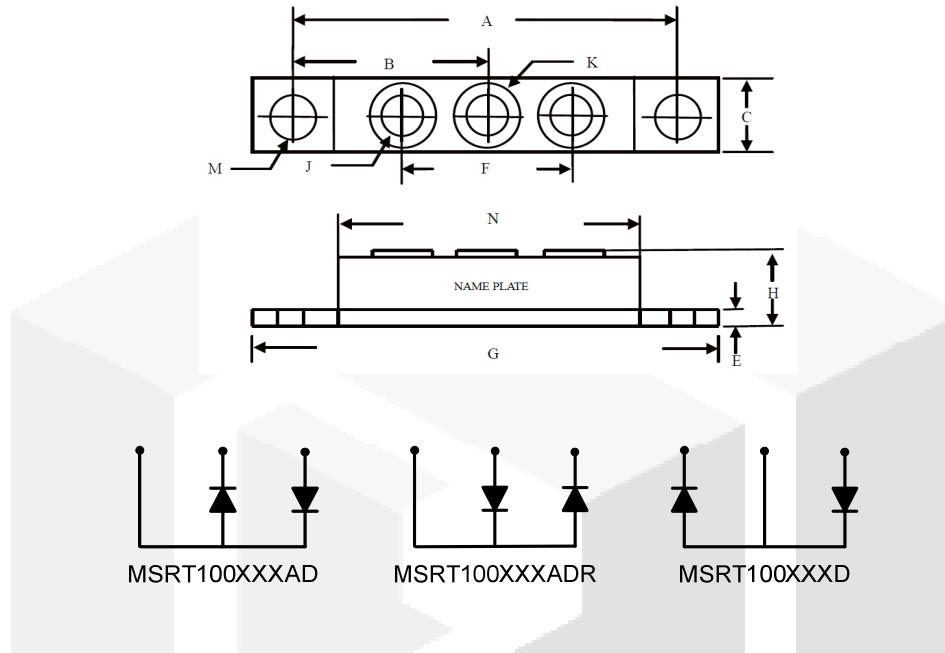


Figure.3-Peak Forward Surge Current



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



DIM	Inches		Millimeters	
	Min	Max	Min	Max
A	3.150	NOM	80.01	NOM
B	1.565	1.585	39.75	40.26
C	0.700	0.800	17.78	20.32
E	0.119	0.132	3.02	3.35
F	1.327	----	33.72	----
G	3.550	3.650	90.17	92.71
H	0.677	0.720	17.20	18.30
J	1/4 -20 UNC FULL			
K	0.472	0.511	12	13
M	0.275	0.295	6.99	7.49
N	2.380	2.460	60.5	62.5