

Silicon Standard Recovery Diode

$V_{RRM} = 200\text{ V} - 1600\text{ V}$

$I_F = 300\text{ A}$

Features

- High Surge Capability
- Types up to 1600 V V_{RRM}

Heavy Three Tower Package



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

Parameter	Symbol	Conditions	MSRTA30080(A)	MSRTA300120(A)	MSRTA300160(A)	Unit
Repetitive peak reverse voltage	V_{RRM}		800	1200	1600	V
DC blocking voltage	V_{DC}		800	1200	1600	V
Continuous forward current	I_F	$T_C \leq 100\text{ }^\circ\text{C}$	300	300	300	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ }^\circ\text{C}$, $t_p = 8.3\text{ ms}$	3800	3800	3800	A
Operating temperature	T_j		-40 to 175	-40 to 175	-40 to 175	$^\circ\text{C}$
Storage temperature	T_{stg}		-40 to 175	-40 to 175	-40 to 175	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	MSRTA30080(A)	MSRTA300120(A)	MSRTA300160(A)	Unit
Diode forward voltage	V_F	$I_F = 300\text{ A}$, $T_j = 25\text{ }^\circ\text{C}$	1.1	1.1	1.1	V
Reverse current	I_R	$V_R = 200\text{ V}$, $T_j = 25\text{ }^\circ\text{C}$	20	20	20	μA
		$V_R = 200\text{ V}$, $T_j = 150\text{ }^\circ\text{C}$	10	10	10	mA

Thermal characteristics

Parameter	Symbol	MSRTA30080(A)	MSRTA300120(A)	MSRTA300160(A)	Unit
Thermal resistance, junction - case	R_{thJC}	0.28	0.28	0.80	$^\circ\text{C/W}$

Figure.1 Typical Forward Characteristics

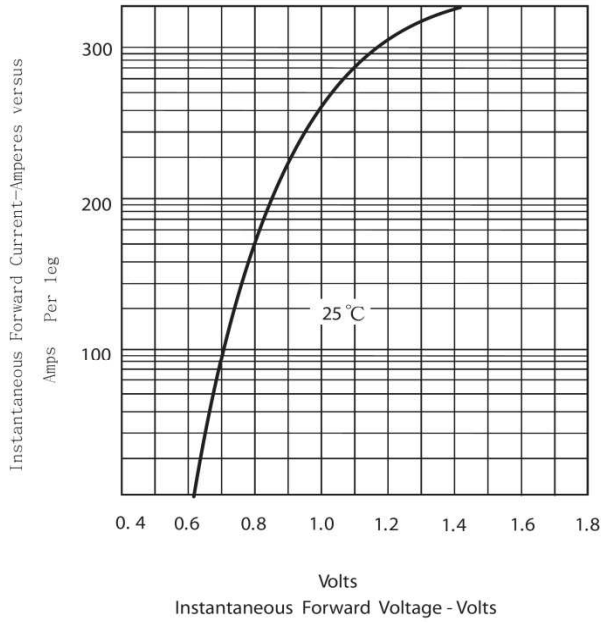


Figure.2 Forward Derating Curve

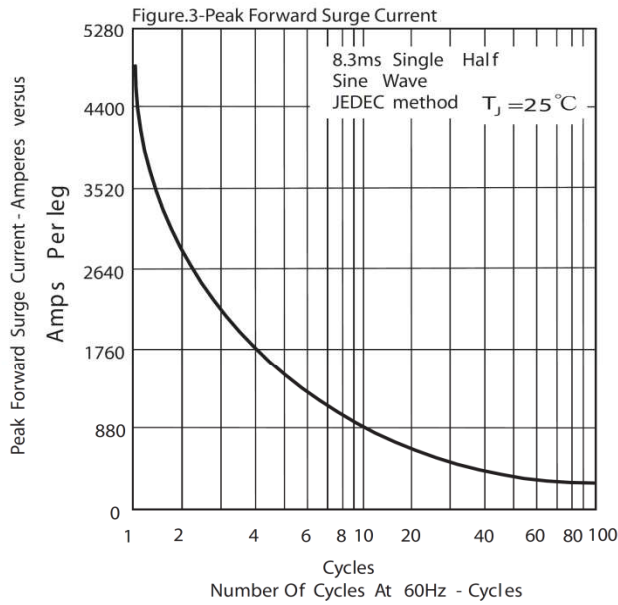
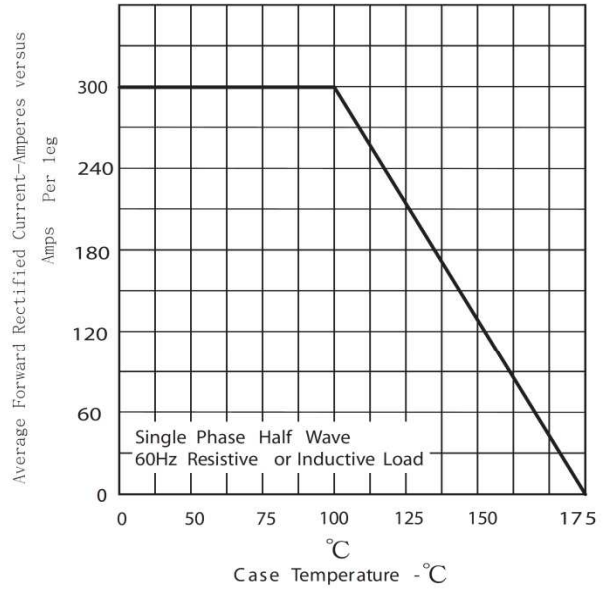
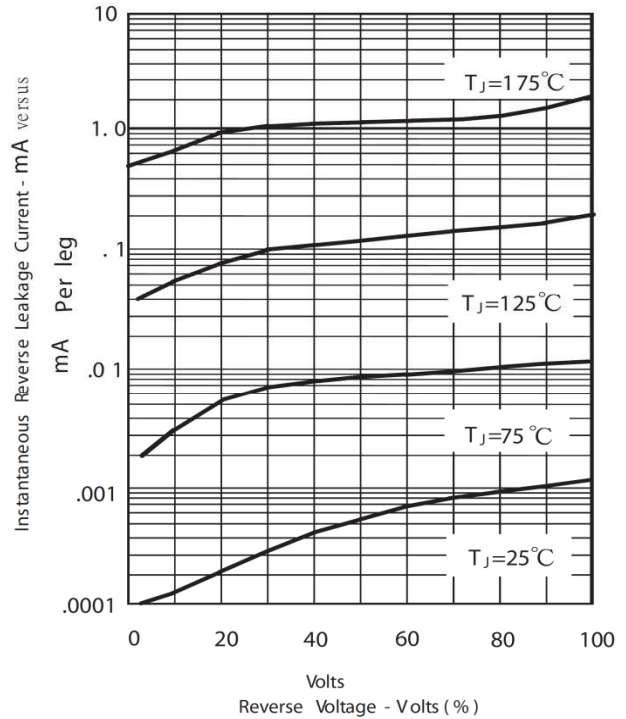
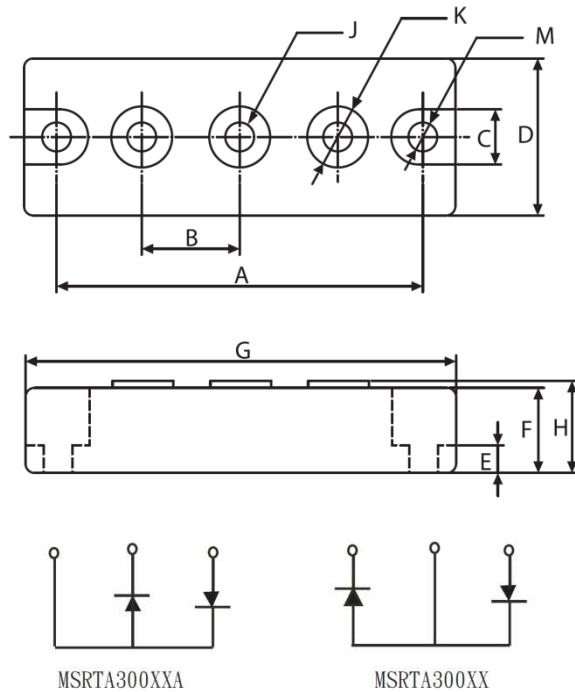


Figure .4-Typical Reverse Characteristics



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	3.150	NOM	80.01	NOM	
B	.872	.892	22.15	22.65	
C	.465	.479	11.82	12.18	
D	1.337	1.356	33.95	34.45	
E	.230	.234	5.84	6.16	
F	.725	REF	18.42	REF	
G	3.668	3.768	93.17	95.71	
H	—	.791	—	20.10	
J	1/4-20 UNC FULL				
K	.509	.538	12.92	13.68	Ø
M	.238	.258	6.05	6.55	Ø