

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	MSRTA30020(A)	MSRTA30040(A)	MSRTA30060(A)	Unit
Repetitive peak reverse voltage	V_{RRM}		200	400	600	V
DC blocking voltage	V_{DC}		200	400	600	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	MSRTA30020(A)	MSRTA30040(A)	MSRTA30060(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	$V_R = 200\text{ V}$, $T_j = 25\text{ }^\circ\text{C}$	25	25	20	μA
		$V_R = 200\text{ V}$, $T_j = 150\text{ }^\circ\text{C}$	10	10	10	mA

Thermal characteristics

Parameter	Symbol	MSRTA30020(A)	MSRTA30040(A)	MSRTA30060(A)	Unit
Thermal resistance, junction - case	R_{thJC}	0.28	0.28	0.28	$^\circ\text{C/W}$

Figure.1 Typical Forward Characteristics

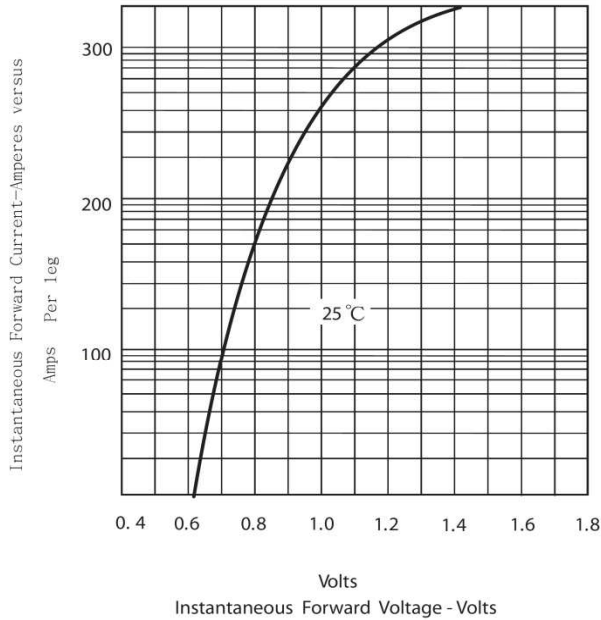


Figure.2 Forward Derating Curve

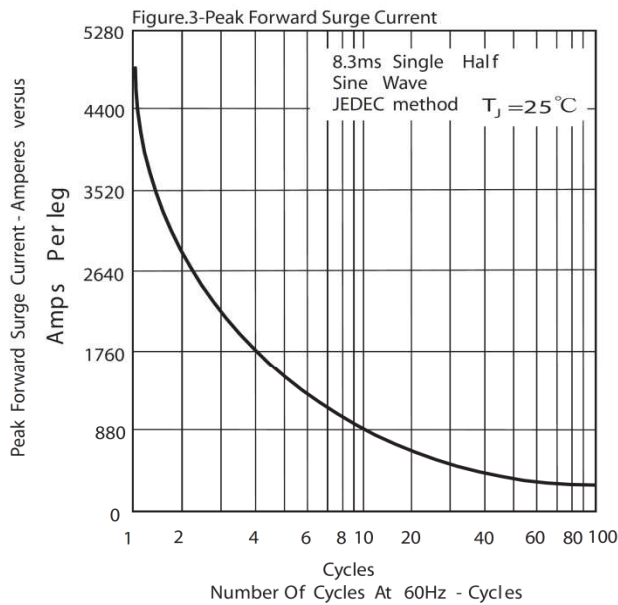
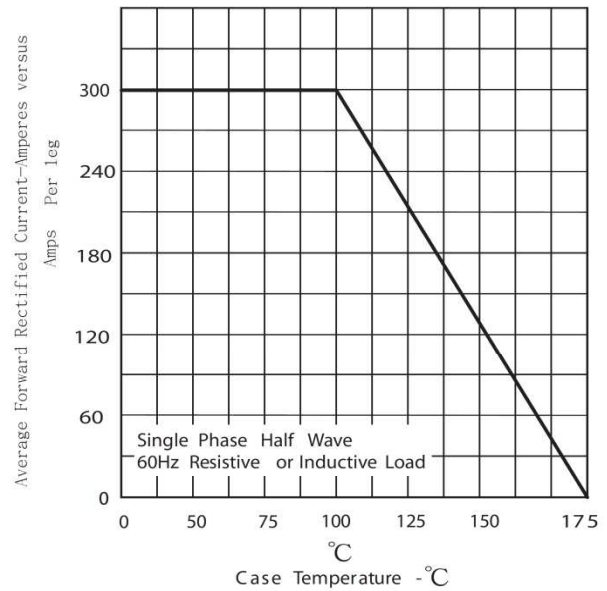
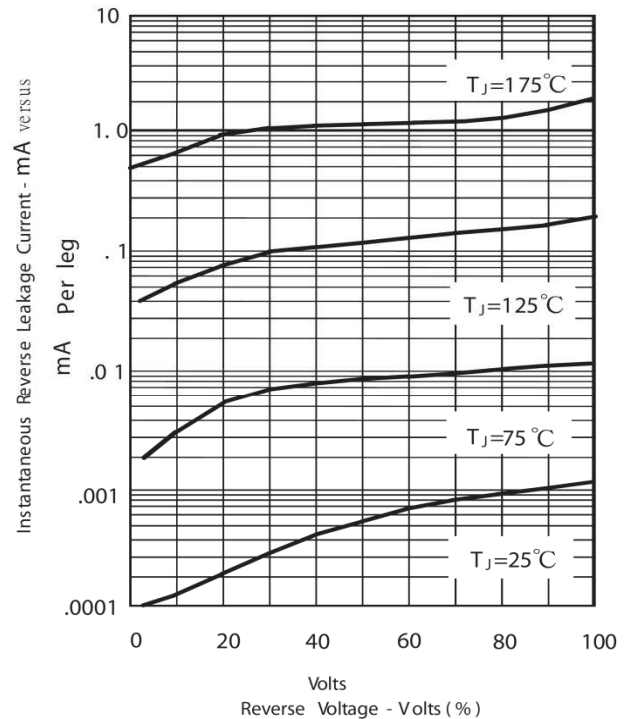
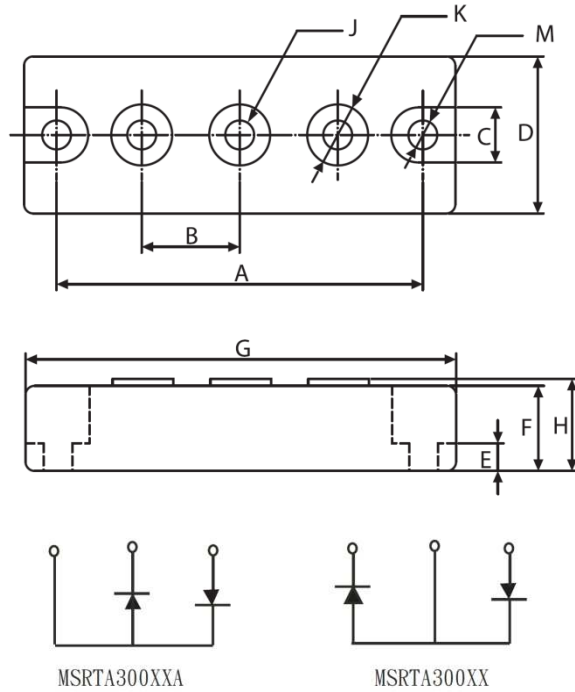


Figure .4 Typical Reverse Characteristics



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