



America Semiconductor

Silicon Standard Recovery Diode

Features

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

MSRT150120(A) thru MSRT150160(A)

$V_{RRM} = 600\text{ V} - 1600\text{ V}$

$I_F = 150\text{ A}$

Three Tower Package



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

Parameter	Symbol	Conditions	MSRT150120(A)	MSRT150140(A)	MSRT150160(A)	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
Continuous forward current	I_F	$T_C \leq 140\text{ }^{\circ}\text{C}$	150	150	150	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ }^{\circ}\text{C}$, $t_p = 8.3\text{ ms}$	2250	2250	2250	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	MSRT150120(A)	MSRT150140(A)	MSRT150160(A)	Unit
Diode forward voltage	V_F	$I_F = 150\text{ A}$, $T_j = 25\text{ }^{\circ}\text{C}$	1.1	1.1	1.1	V
Reverse current	I_R	$V_R = 600\text{ V}$, $T_j = 25\text{ }^{\circ}\text{C}$	10	10	10	μA
		$V_R = 600\text{ V}$, $T_j = 150\text{ }^{\circ}\text{C}$	5	5	5	mA

Thermal characteristics

Thermal resistance, junction - case	R_{thJC}		0.40	0.40	0.40	$^{\circ}\text{C/W}$
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MSRT150120(A) thru MSRT150160(A)

Figure .1- Typical Forward Characteristics

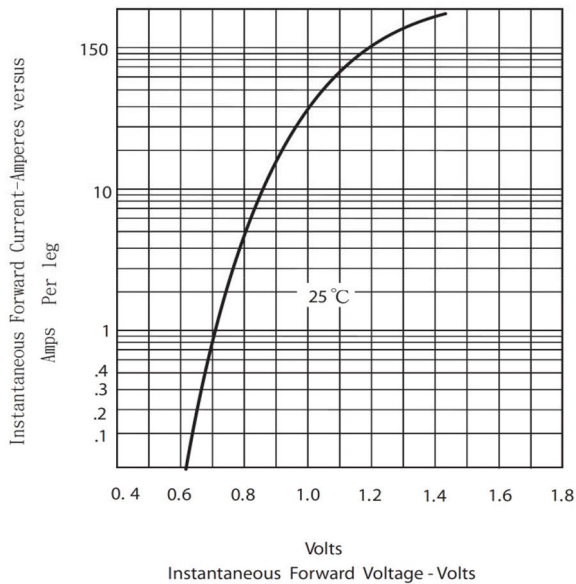


Figure.2 Forward Derating Curve

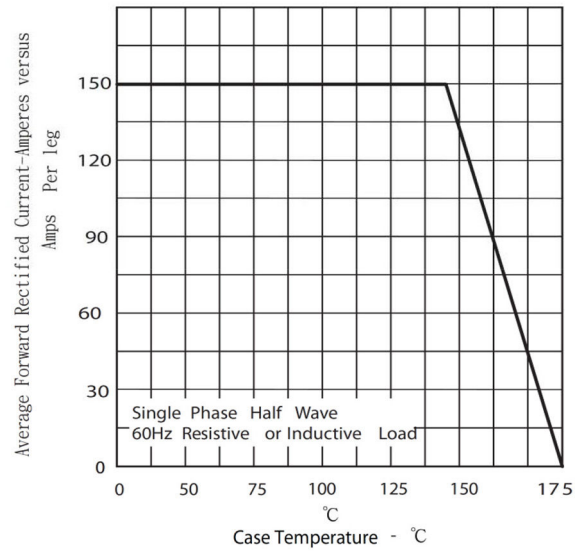


Figure.3-Peak Forward Surge Current

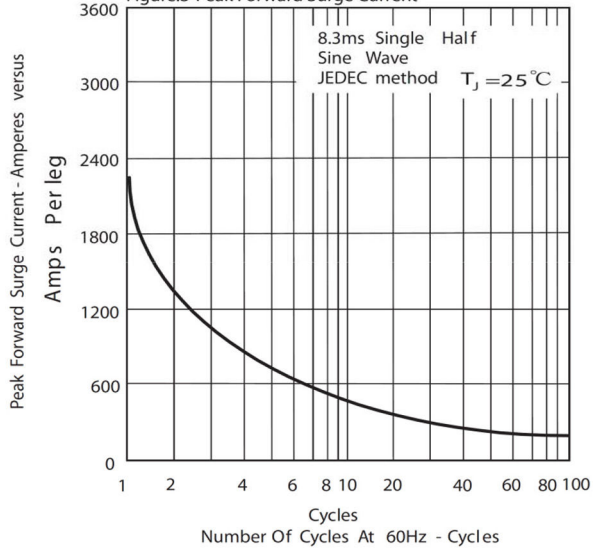


Figure .4 -Typical Reverse Characteristics

