



# America Semiconductor

## Silicon Standard Recovery Diode

### MSRT25060(A) thru MSRT250100(A)

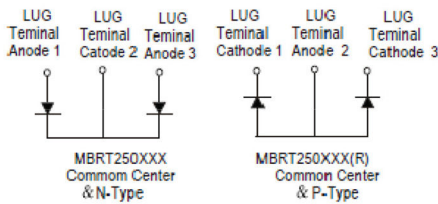
$V_{RRM} = 600\text{ V} - 1600\text{ V}$

$I_F = 250\text{ A}$

#### Features

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

#### Three Tower Package



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

Parameter	Symbol	Conditions	MSRT25060(A)	MSRT25080(A)	MSRT250100(A)	Unit
Repetitive peak reverse voltage	$V_{RRM}$		600	800	1000	V
RMS reverse voltage	$V_{RMS}$		424	566	707	V
DC blocking voltage	$V_{DC}$		600	800	1000	V
Continuous forward current	$I_F$	$T_C \leq 140\text{ }^\circ\text{C}$	250	250	250	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ }^\circ\text{C}$ , $t_p = 8.3\text{ ms}$	3300	3300	3300	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	MSRT25060(A)	MSRT25080(A)	MSRT250100(A)	Unit
Diode forward voltage	$V_F$	$I_F = 250\text{ A}$ , $T_j = 25\text{ }^\circ\text{C}$	1.2	1.2	1.2	V
Reverse current	$I_R$	$V_R = 600\text{ V}$ , $T_j = 25\text{ }^\circ\text{C}$	15	15	15	$\mu\text{A}$
		$V_R = 600\text{ V}$ , $T_j = 150\text{ }^\circ\text{C}$	5	5	5	mA

#### Thermal characteristics

Thermal resistance, junction - case	$R_{thJC}$		0.17	0.17	0.17	$^\circ\text{C/W}$
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Figure .1- Typical Forward Characteristics

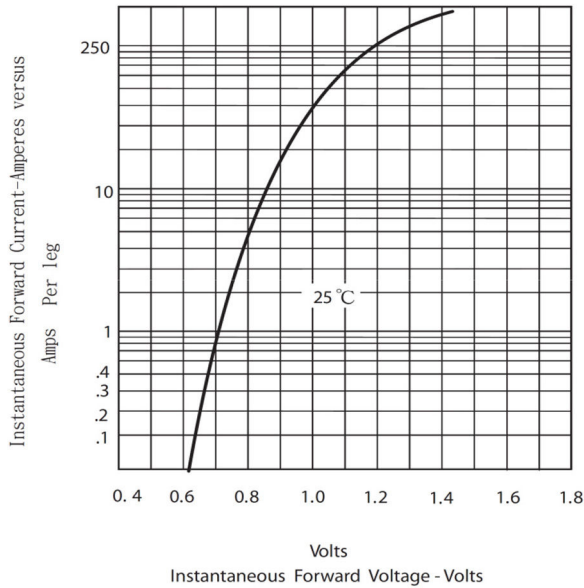


Figure.2 Forward Derating Curve

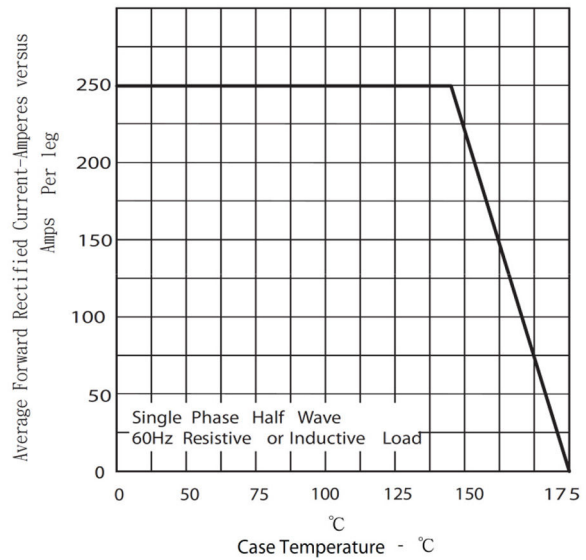


Figure.3-Peak Forward Surge Current

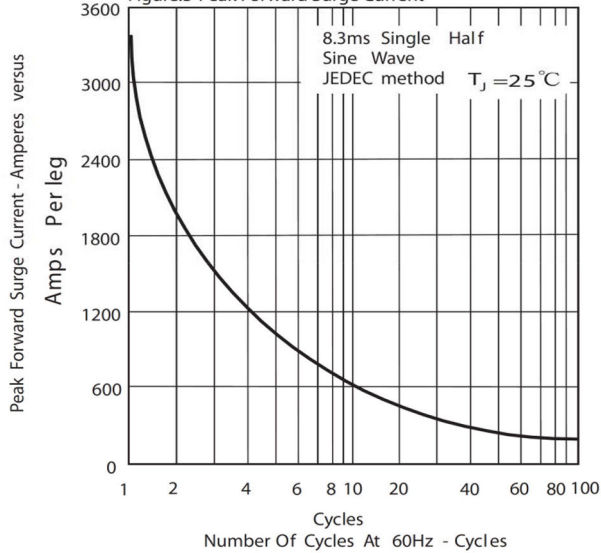


Figure .4-Typical Reverse Characteristics

