



## Silicon Standard Recovery Diode

## MSRT200120(A) thru MSRT200160(A)

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

$I_F = 200\text{ A}$

### 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	MSRT200120(A)	MSRT200140(A)	MSRT200160(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	$I_F$	$T_C \leq 140\text{ }^\circ\text{C}$	200	200	200	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ }^\circ\text{C}$ , $t_p = 8.3\text{ ms}$	3000	3000	3000	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	MSRT200120(A)	MSRT200140(A)	MSRT200160(A)	Unit
Diode forward voltage	$V_F$	$I_F = 200\text{ A}$ , $T_j = 25\text{ }^\circ\text{C}$	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	$\mu\text{A}$
		$V_R = 600\text{ V}$ , $T_j = 150\text{ }^\circ\text{C}$	5	5	5	mA

### Thermal characteristics

Thermal resistance, junction - case	$R_{\theta JC}$		0.35	0.35	0.35	$^\circ\text{C/W}$
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Figure 1- Typical Forward Characteristics

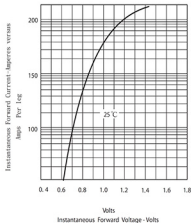


Figure 2 Forward Derating Curve

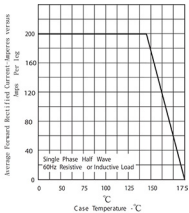


Figure 3-Peak Forward Surge Current

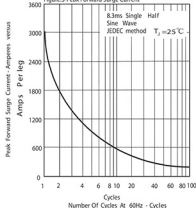


Figure 4-Typical Reverse Characteristics

