America Semiconductor™

MSRT200120(A) thru MSRT200160(A)

Silicon Standard Recovery Diode

V_{RRM} = 600 V - 1600 V

I_F = 200 A

Features

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

Three Tower Package

Maximum ratings, at T_j = 25 °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	$T_C \leq 140$ °C	200	200	200	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25$ °C, $t_p = 8.3$ ms	3000	3000	3000	A
Operating temperature	T_j		-40 to 175	-40 to 175	-40 to 175	°C
Storage temperature	T_{stg}		-40 to 175	-40 to 175	-40 to 175	°C

Electrical characteristics, at Tj = 25 °C, unless otherwise specified

Parameter	Symbol	Conditions	MSRT200120(A)	MSRT200140(A)	MSRT200160(A)	Unit
Diode forward voltage	V_F	$I_F = 200$ A, $T_j = 25$ °C	1.1	1.1	1.1	V
Reverse current	I_R	$V_R = 600$ V, $T_j = 25$ °C	10	10	10	μA
		$V_R = 600$ V, $T_j = 150$ °C	5	5	5	mA
Thermal characteristics						
Thermal resistance, junction - case	R_{thJC}		0.35	0.35	0.35	°C/W

RoHS Compliant

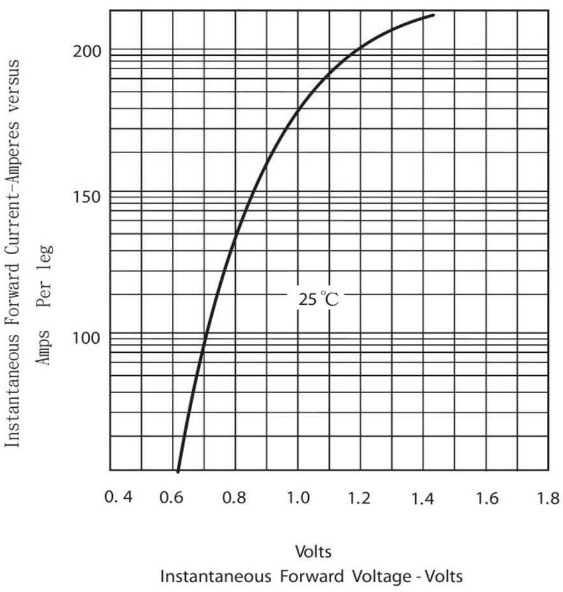
Figure .1- Typical Forward Characteristics

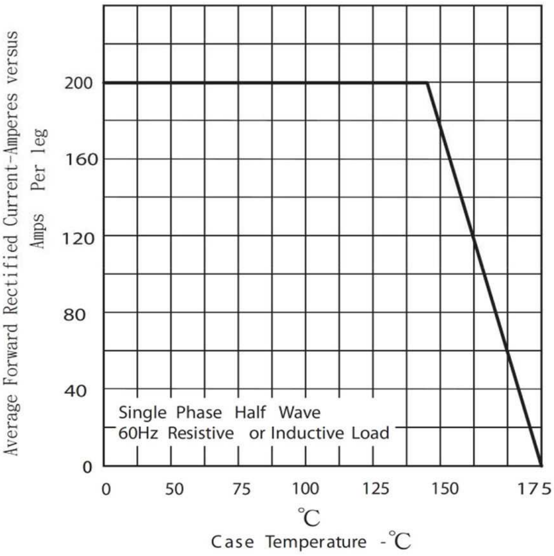
Figure.2 Forward Derating Curve

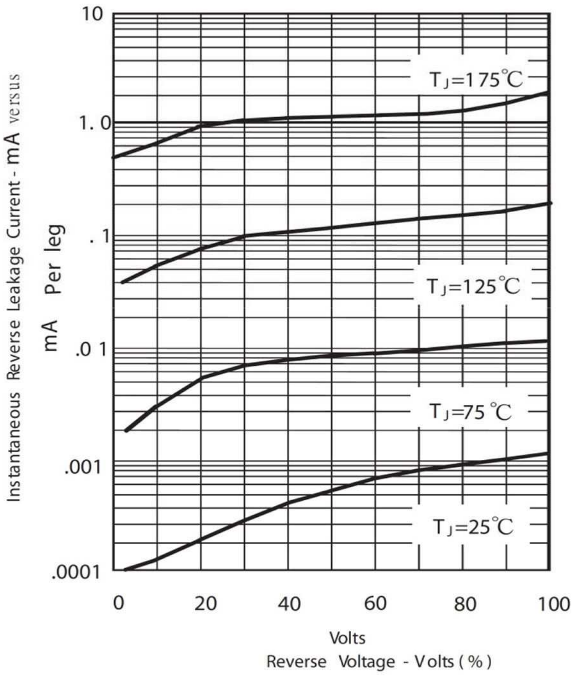
Figure .4 -Typical Reverse Characteristics

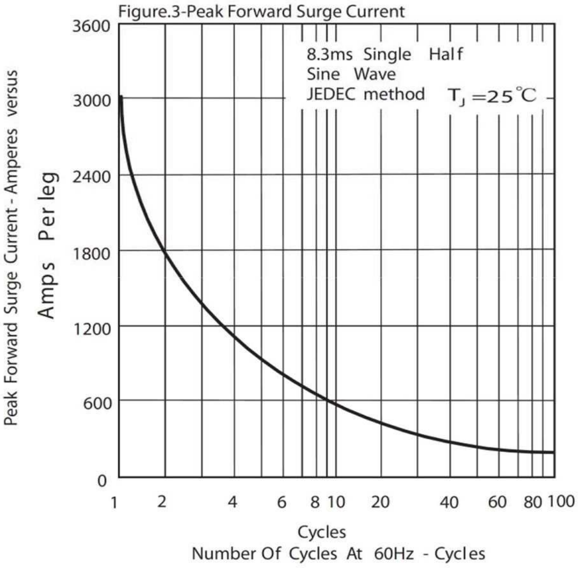
Figure.3-Peak Forward Surge Current