

**Silicon Standard  
Recovery Diode**

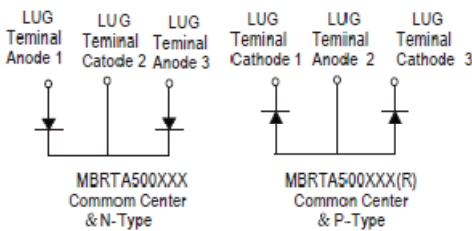
$V_{RRM} = 600\text{ V} - 1600\text{ V}$

$I_F = 500\text{ A}$

**Features**

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

**Heavy Three Tower Package**



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

Parameter	Symbol	Conditions	MSRTA500120(A)	MSRTA500140(A)	MSRTA500160(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	$I_F$	$T_C \leq 125\text{ °C}$	500	500	500	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ °C}$ , $t_p = 8.3\text{ ms}$	4400	4400	4400	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  $T_j = 25\text{ °C}$ , unless otherwise specified**

Parameter	Symbol	Conditions	MSRTA500120(A)	MSRTA500140(A)	MSRTA500160(A)	Unit
Diode forward voltage	$V_F$	$I_F = 500\text{ A}$ , $T_j = 25\text{ °C}$	1.2	1.2	1.2	V
Reverse current	$I_R$	$V_R = 600\text{ V}$ , $T_j = 25\text{ °C}$	25	25	25	$\mu\text{A}$
		$V_R = 600\text{ V}$ , $T_j = 150\text{ °C}$	10	10	10	mA

**Thermal characteristics**

Parameter	Symbol	MSRTA500120(A)	MSRTA500140(A)	MSRTA500160(A)	Unit
Thermal resistance, junction - case	$R_{thJC}$	0.12	0.12	0.12	°C/W

Figure .1- Typical Forward Characteristics

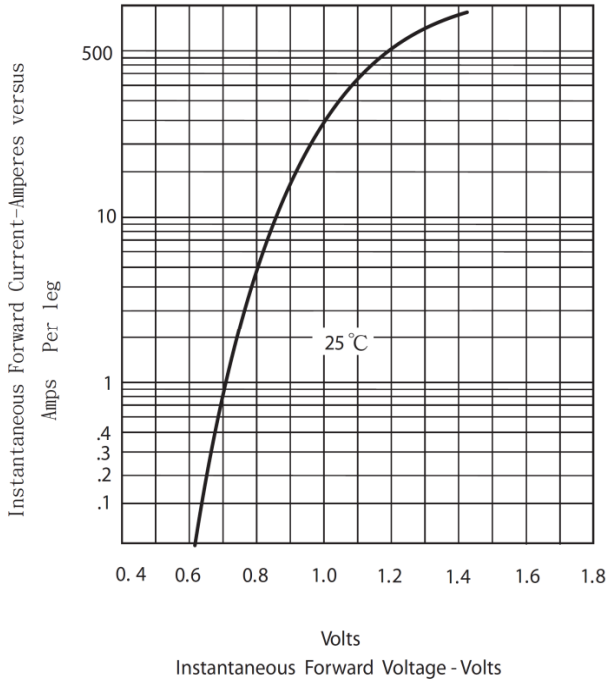


Figure.2 Forward Derating Curve

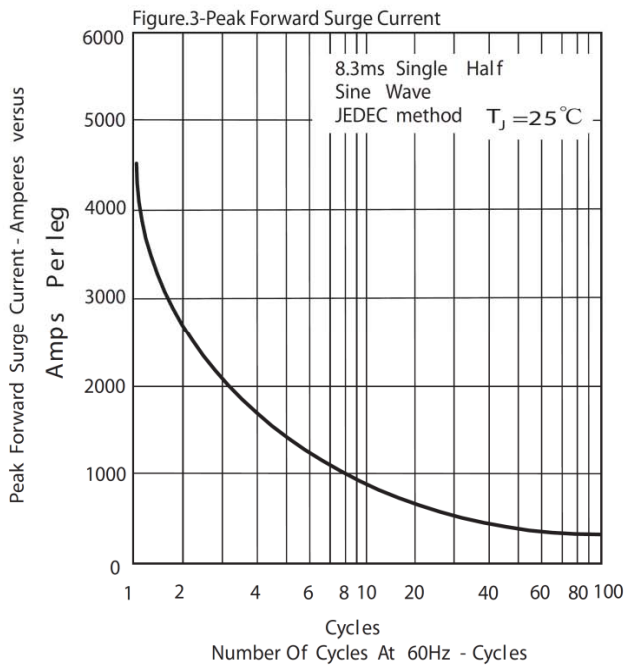
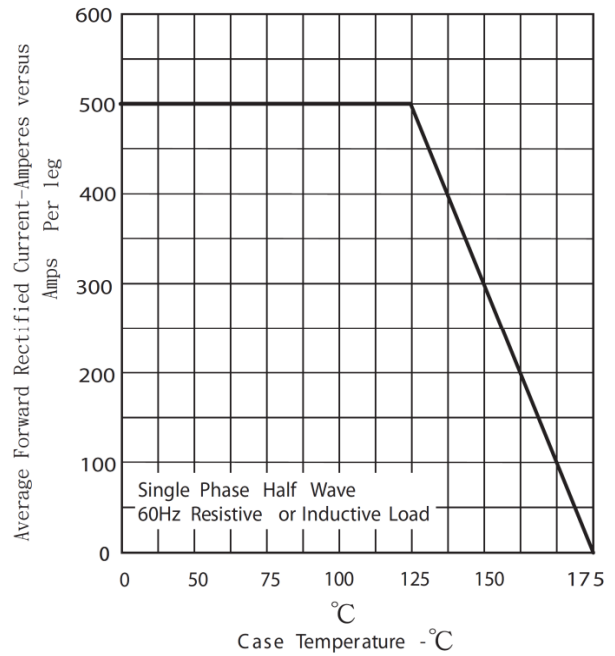


Figure .4 -Typical Reverse Characteristics

