

**Silicon Super Fast  
Recovery Diode**

$$V_{RRM} = 50 \text{ V} - 600 \text{ V}$$

$$I_F = 200 \text{ A}$$

**Features**

- High Surge Capability
- Types up to 800 V  $V_{RRM}$

**Three Tower Package**

**Maximum ratings, at  $T_j = 25^\circ\text{C}$ , unless otherwise specified ("R" devices have leads reversed)**

Parameter	Symbol	Conditions	MURT20040 (R)	MURT20060 (R)	Unit
Repetitive peak reverse voltage	$V_{RRM}$		400	600	V
RMS reverse voltage	$V_{RMS}$		283	424	V
DC blocking voltage	$V_{DC}$		400	600	V
Continuous forward current	$I_F$	$T_C \leq 140^\circ\text{C}$	200	200	A
Surge non-repetitive forward current, Half Sine Wave	$I_{FSM}$	$T_C = 25^\circ\text{C}$ , $t_F = 8.3 \text{ ms}$	2000	2000	A
Operating temperature	$T_j$		-40 to 175	-40 to 175	$^\circ\text{C}$
Storage temperature	$T_{stg}$		-40 to 175	-40 to 175	$^\circ\text{C}$

**Electrical characteristics, at  $T_j = 25^\circ\text{C}$ , unless otherwise specified**

Parameter	Symbol	Conditions	MURT20040 (R)	MURT20060 (R)	Unit
Diode forward voltage	$V_F$	$I_F = 100 \text{ A}$ , $T_j = 25^\circ\text{C}$	1.35	1.7	V
Reverse current	$I_R$	$V_R = 50 \text{ V}$ , $T_j = 25^\circ\text{C}$	25	25	$\mu\text{A}$
		$V_R = 50 \text{ V}$ , $T_j = 125^\circ\text{C}$	1	1	mA
<b>Recovery Time</b>					
Maximum reverse recovery time	$T_{RR}$	$I_F = 0.5 \text{ A}$ , $I_R = 1.0 \text{ A}$ , $I_{RR} = 0.25 \text{ A}$	90	160	nS
<b>Thermal characteristics</b>					
Thermal resistance, junction - case	$R_{\theta JC}$		0.18	0.18	$^\circ\text{C/W}$



Figure 1- Typical Forward Characteristics

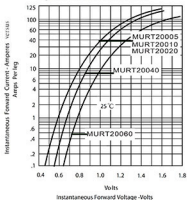


Figure 2- Forward Derating Curve

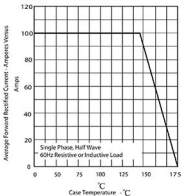


Figure 3- Peak Forward Surge Current

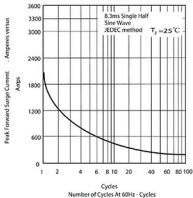


Figure 4- Typical Reverse Characteristics

