

Super Fast Recovery Rectifiers

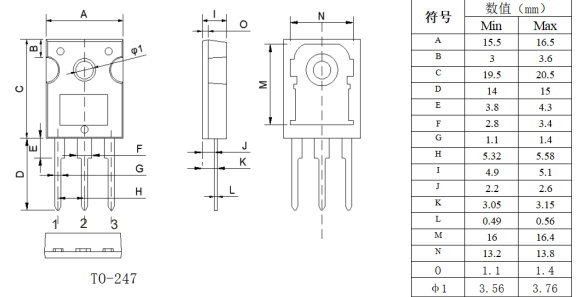
Features

- High frequency operation
- Low power loss, less RFI and EMI
- Low I_R value
- High surge capacity
- Epitaxial chip construction

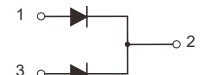
Mechanical Data

- Case: TO-247
- Molding compound, UL flammability classification rating 94V-0

TO-247



1. ANODE
2. CATHODE
3. ANODE



Maximum Ratings (@ $T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symble	MUR6040PT	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	400	V
Maximum Average Forward Rectified Current Per leg Per device	$I_{F(AV)}$	30 60	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)(Per leg)	I_{FSM}	300	A
Typical Thermal Resistance (P.C.B. mounted with 3.81X3.81cm copper pad areas.)	$R_{\theta JC}$	0.8	$^{\circ}\text{C}/\text{W}$
Operating Junction Temperature Range	T_j	175	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	-55 ~ +175	$^{\circ}\text{C}$

Electrical Characteristics (@ $T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbols	Test Conditions	Min	Typ	Max	Units
Instantaneous forward voltage per leg	V_F	$I_F=30\text{A}, T_J=25^{\circ}\text{C}$		1.15	1.5	V
		$I_F=30\text{A}, T_J=125^{\circ}\text{C}$		1.1	1.4	V
Reverse current per leg	I_R	$V_R=400\text{V}, T_J=25^{\circ}\text{C}$			30	μA
		$V_R=400\text{V}, T_J=125^{\circ}\text{C}$			300	μA
Maximum Reverse Recovery Time	t_{rr}	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$		40	55	ns
Maximum Reverse Recovery Time	t_{rr}	$I_F=1\text{A}, V_R=30\text{V}, DI_F/Dt=-200\text{A}/\mu\text{s}$		26		ns

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Ratings and Characteristic Curves

Fig.1 Forward Current Derating Curve

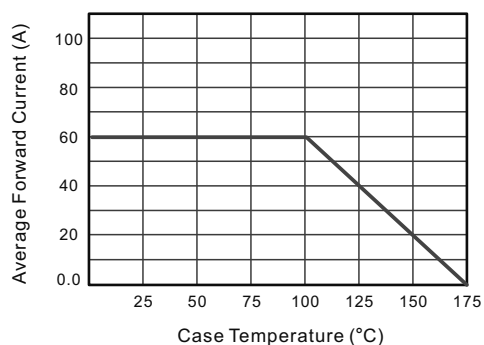


Fig.2 Typical Instantaneous Reverse Characteristics

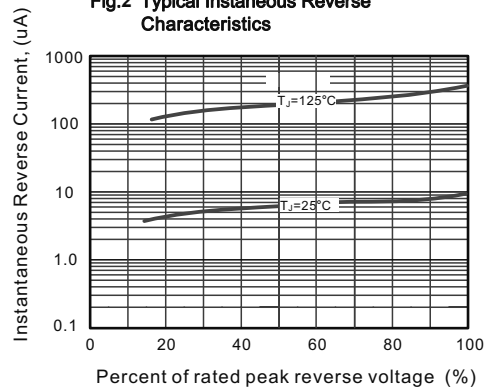


Fig.3 Typical Forward Characteristic

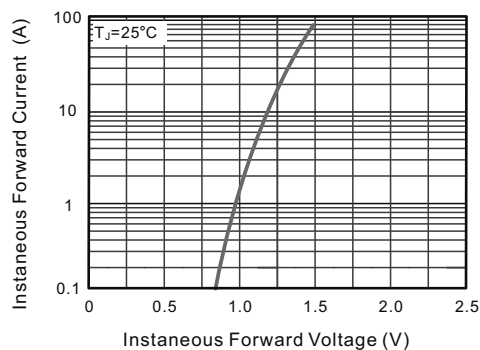


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current

