

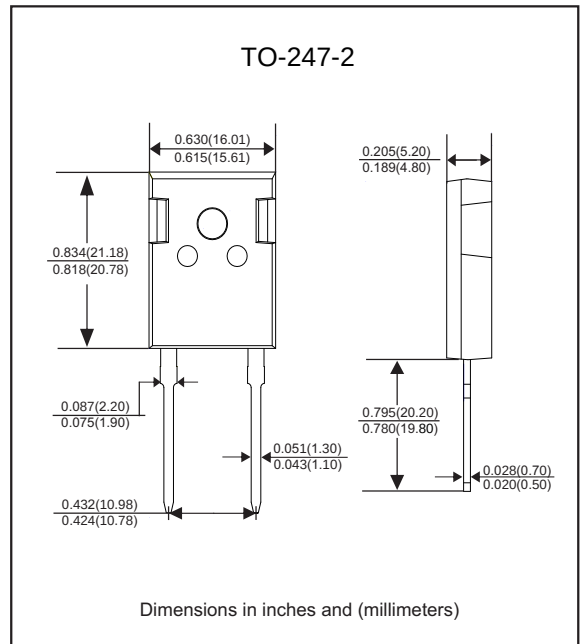
Features

- High frequency operation
- High surge forward current capability
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability
- Suffix "H" indicates Halogen-free parts

Mechanical data

- Case : TO-247-2
- Material: UL flammability classification 94V-0
- Polarity : Polarity symbol marking on body

Package outline



Maximum ratings and Electrical Characteristics (AT $T_J=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symble	MUR3020P	MUR3040P	MUR3060P	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200	400	600	V
Maximum RMS voltage	V_{RMS}	140	280	420	V
Maximum DC Blocking Voltage	V_{DC}	200	400	600	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	30			A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)(Per leg)	I_{FSM}	300			A
Max Instantaneous Forward Voltage at 30 A (Per leg)	V_F	1.1	1.3	1.7	V
Maximum DC Reverse Current $T_J = 25^{\circ}\text{C}$ at Rated DC Reverse Voltage $T_J = 125^{\circ}\text{C}$	I_R	10 500			μA
Maximum Reverse Recovery Time ⁽¹⁾	t_{rr}	35			ns
Typical Thermal Resistance	$R_{\theta JC}$	1.0			$^{\circ}\text{C/W}$
Typical Junction Capacitance at 4V	C_j	250	215	140	pF
Operating Junction Temperature Range	T_J	$-55 \sim +150$			$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	$-55 \sim +150$			$^{\circ}\text{C}$

NOTE 1: Reverse recovery test conditions $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$

Rating and characteristic curves

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram

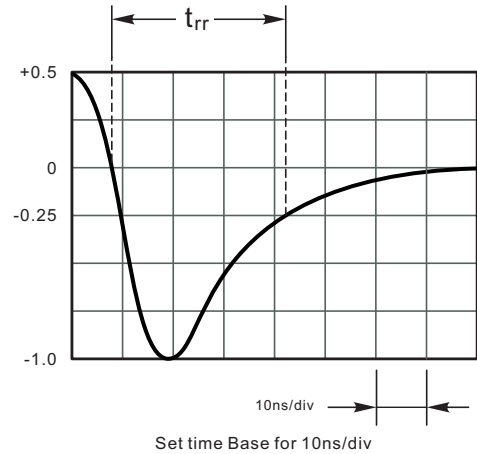
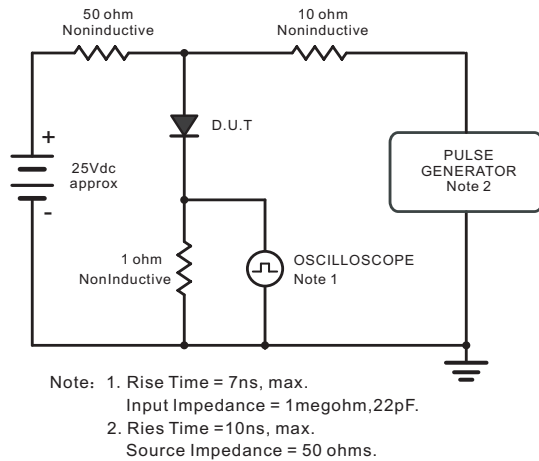


Fig.2 Forward Current Derating Curve

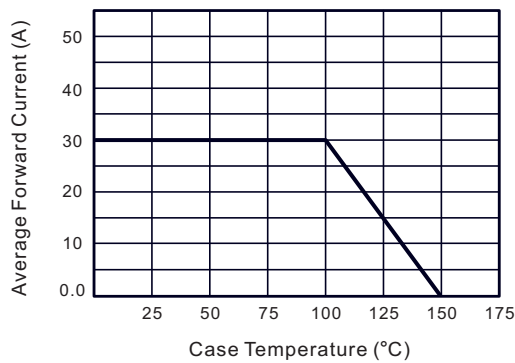


Fig.3 Typical Instantaneous Reverse Characteristics

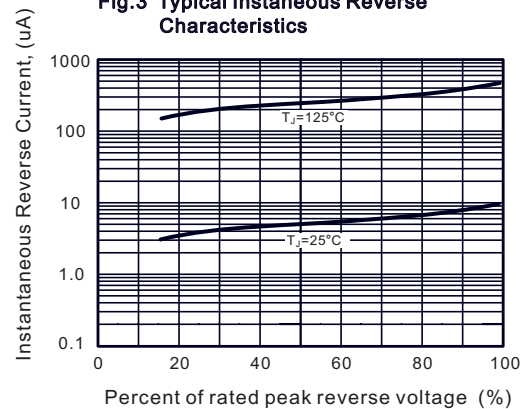


Fig.4 Typical Forward Characteristic

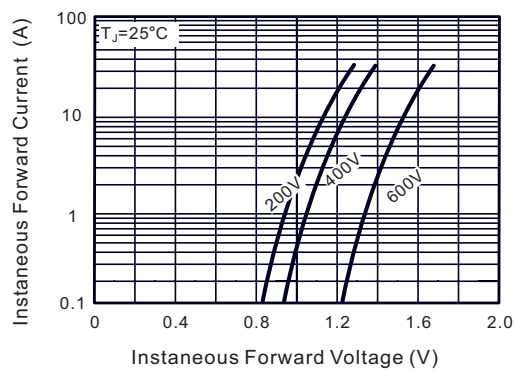
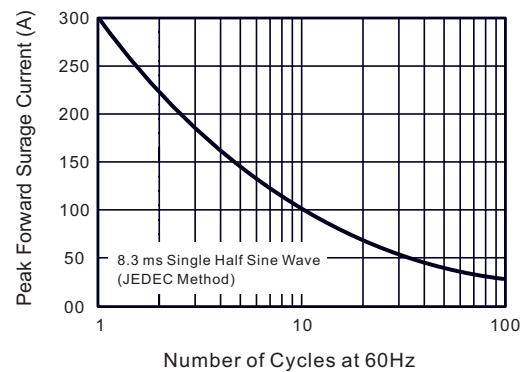
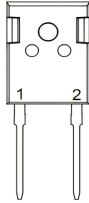
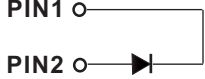


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
MUR3020P	MUR3020P
MUR3040P	MUR3040P
MUR3060P	MUR3060P