

Fast Recovery Epi Diodes

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
- ◆ Solder dip 275 °C max. 7s, per JESD 22-B106

TO-220AC



PI



Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbols	MUR820CT	MUR840CT	MUR860CT	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	$I_{F(AV)}$	8			A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	100			A
Instantaneous forward voltage at 8 A	V_F	1.0	1.3	1.6	V
Maximum Reverse Recovery Time ⁽¹⁾	t_{rr}	35			ns
Maximum instantaneous reverse current at rated DC blocking voltage $T_j=25^{\circ}\text{C}$ $T_j=125^{\circ}\text{C}$	I_R	10 500			uA
Maximum Thermal Resistance Junction To Case	$R_{\theta JC}$	4			°C/W
Operation Junction Temperature and Storage Temperature	T_j, T_{stg}	-55 ~ +150			°C

NOTE 1: $I_F=0.5A, I_R=1A, I_{rr}=0.25A$

Ratings And Characteristic Curves

Fig.1 Typical Forward Current Derating Curve

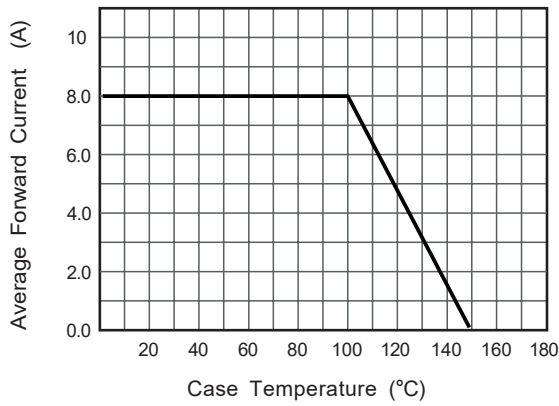


Fig.2 Typical Reverse Characteristics

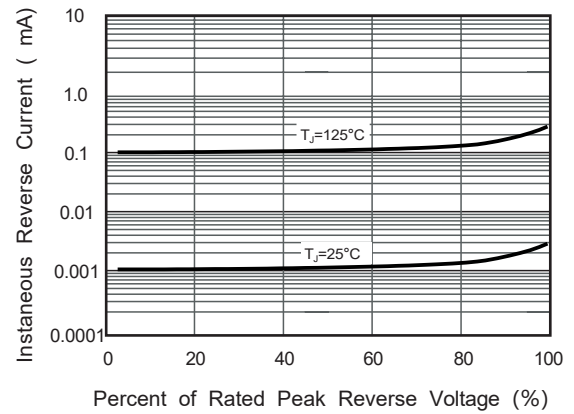


Fig.3 Typical Forward Characteristic

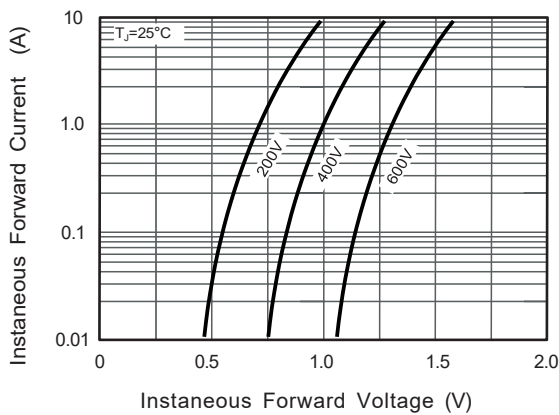
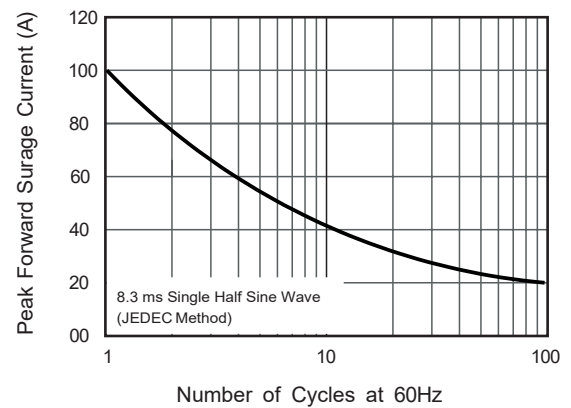


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



The curve above is for reference only.