



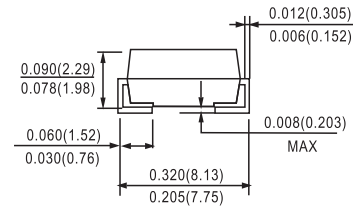
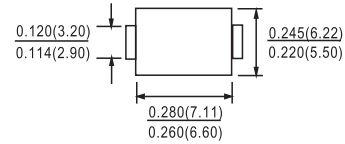
**FEATURES**

- 20 mJ Avalanche Energy Guaranteed
- Excellent Protection Against Voltage Transients in Switching Inductive Load Circuits
- Ultrafast 75 Nanosecond Recovery Time
- 175°C Operating Junction Temperature
- Low Forward Voltage
- Low Leakage Current
- High Temperature Glass Passivated Junction
- Reverse Voltage to 800 V
- These are Pb-Free Devices

**MECHANICAL DATA**

- Case: Epoxy, Molded
- Weight: 217 mg (Approximately)
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 Seconds
- Shipped in 16 mm Tape & Reel, 2500 Units per Reel
- Polarity: Notch in Plastic Body Indicates Cathode Lead

DO-214AB(SMC)



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

**MAXIMUM RATINGS**

Rating	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	800	V
Average Rectified Forward Current	$I_{F(AV)}$	4.0 @ $T_L=110^\circ\text{C}$	A
Non-Repetitive Peak Surge Current (Surge Applied at Rated Load Conditions Halfwave, Single Phase, 60 Hz)	$I_{FSM}$	70	A
Operating Junction and Storage Temperature Range	$T_J, T_{stg}$	-65 to +175	°C

**THERMAL CHARACTERISTICS**

Rating	Symbol	Value	Unit
Maximum Thermal Resistance, Junction-to-Lead	$R_{\theta JL}$	11	°C/W
Maximum Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	165	°C/W

**ELECTRICAL CHARACTERISTICS**

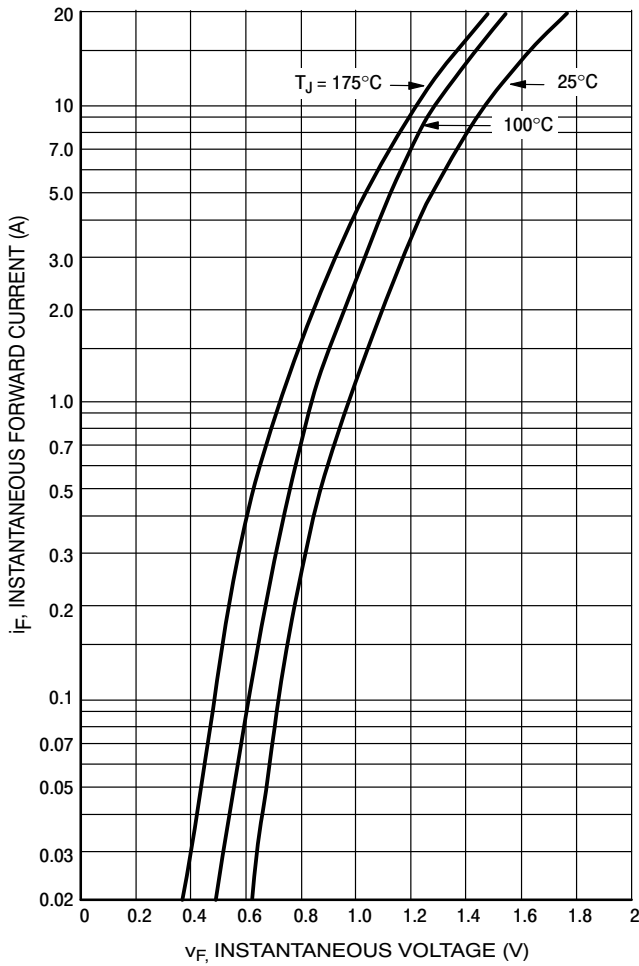
Characteristic	Symbol	Max	Unit
Maximum Instantaneous Forward Voltage (Note 1) ( $I_F = 3.0$ Amps, $T_J = 150^\circ\text{C}$ ) ( $I_F = 3.0$ Amps, $T_J = 25^\circ\text{C}$ ) ( $I_F = 4.0$ Amps, $T_J = 25^\circ\text{C}$ )	$V_F$	1.53 1.75 1.85	V
Maximum Instantaneous Reverse Current (Note 1) (Rated dc Voltage, $T_J = 150^\circ\text{C}$ ) (Rated dc Voltage, $T_J = 25^\circ\text{C}$ )	$i_R$	900 25	$\mu\text{A}$
Maximum Reverse Recovery Time ( $I_F = 1.0$ A, $di/dt = 50$ A/ $\mu\text{s}$ ) ( $I_F = 0.5$ A, $i_R = 1.0$ A, $I_{REC} = 0.25$ A)	$t_{rr}$	100 75	ns
Maximum Forward Recovery Time ( $I_F = 1.0$ Amp, $di/dt = 100$ Amp/ $\mu\text{s}$ , Recovery to 1.0 V)	$t_{fr}$	75	ns
Controlled Avalanche Energy	$W_{AVAIL}$	20	mJ

1. Pulse Test: Pulse Width = 300  $\mu\text{s}$ , Duty Cycle  $\leq$  2.0%.

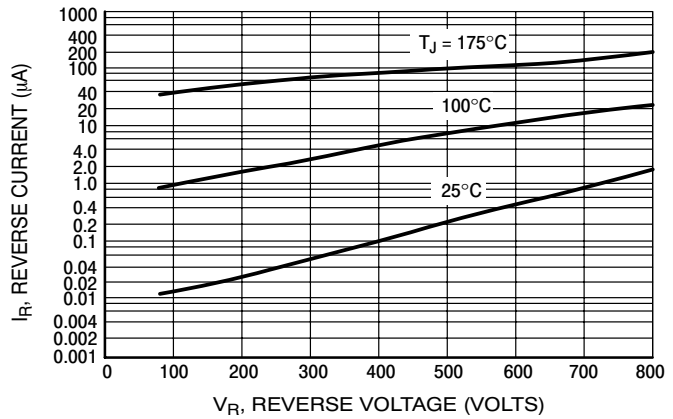


**RATINGS AND CHARACTERISTIC CURVES**

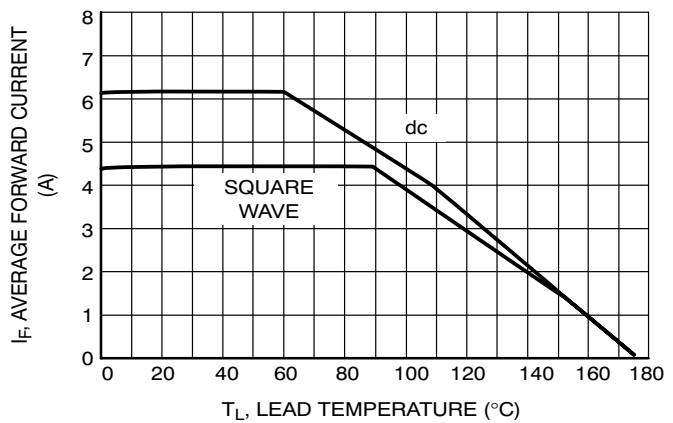
**MURS480ET3G**



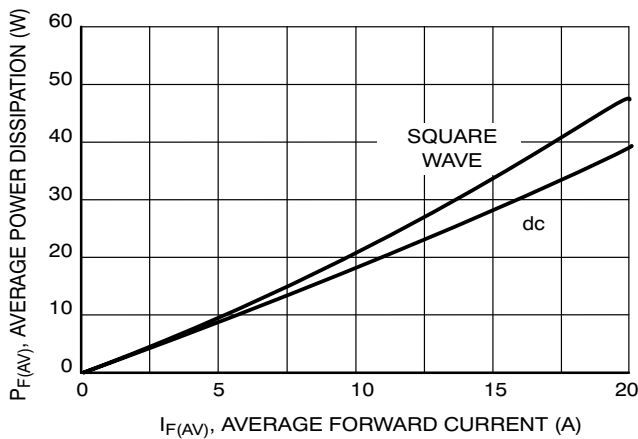
**Figure 1. Typical Forward Voltage**



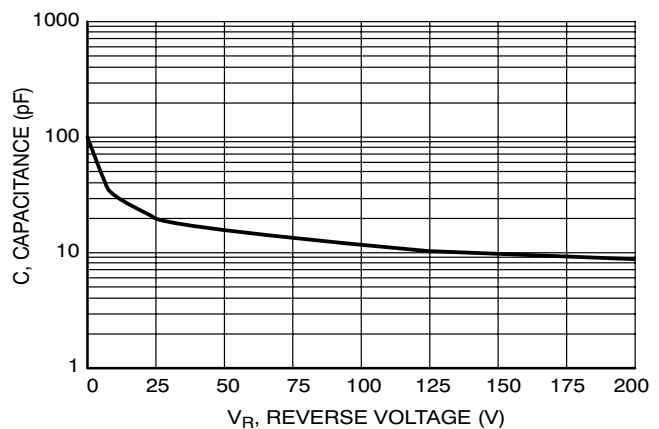
**Figure 2. Typical Reverse Current**



**Figure 3. Current Derating Lead**



**Figure 4. Power Dissipation**



**Figure 5. Typical Capacitance**