

Pb Free Plating Product

MUR1680D



16.0 Ampere Dual Doubler Polarity Ultra Fast Recovery Rectifier

Features

- ★ Fast switching for high efficiency
- ★ Low forward voltage drop
- ★ High current capability
- ★ Low reverse leakage current
- ★ High surge current capability

Application

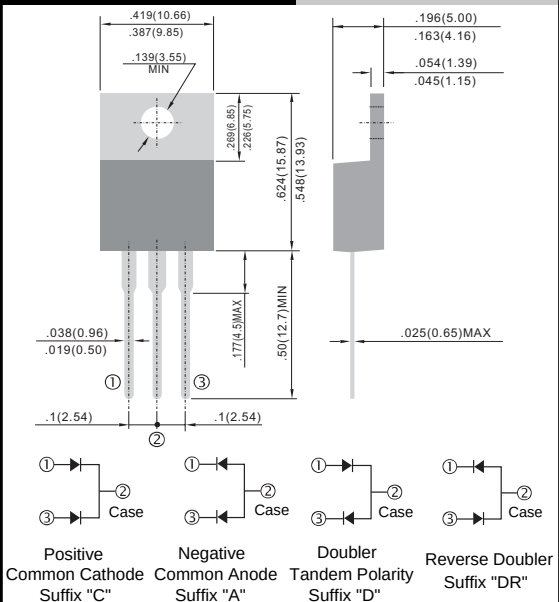
- ★ Automotive Inverters/Solar Inverters
- ★ Plating Power Supply, SMPS and UPS
- ★ Car Audio Amplifiers and Sound Device Systems

Mechanical Data

- ★ Case: Heatsink TO-220AB
- ★ Epoxy: UL 94V-0 rate flame retardant
- ★ Terminals: Solderable per MIL-STD-202 method 208
- ★ Polarity: As marked on diode body
- ★ Mounting position: Any
- ★ Weight: 2.2 gram approximately

TO-220AB

Unit : inch (mm)

**Maximum Ratings and Electrical Characteristics**

Rating at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	MUR1680D	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	800	V
Maximum RMS Voltage	V_{RMS}	560	V
Maximum DC Blocking Voltage	V_{DC}	800	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	16	A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	125	A
Maximum Instantaneous Forward Voltage (Note 1) @ 8 A	V_F	1.8	V
Maximum DC Reverse Current @ $T_A=25\text{ }^{\circ}\text{C}$ at Rated DC Blocking Voltage @ $T_A=125\text{ }^{\circ}\text{C}$	I_R	10 400	μA
Maximum Reverse Recovery Time (Note 2)	T_{rr}	40	nS
Typical Junction Capacitance (Note 3)	C_j	50	pF
Typical Thermal Resistance	$R_{\theta JC}$	1.5	$^{\circ}\text{C/W}$
Operating Temperature Range	T_J	- 55 to + 150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	- 55 to + 150	$^{\circ}\text{C}$

Note 1: Pulse Test with PW=300 usec, 1% Duty Cycle

Note 2: Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $IRR=0.25\text{A}$

Note 3: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

