Pb Free Plating Product

MBR1045CTR

10Ampere,45Volt Dual Common Anode Schottky Half Bridge Rectifier

Features

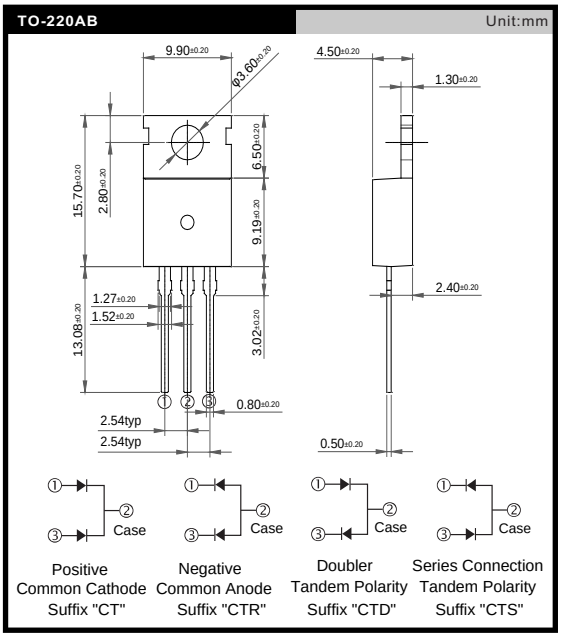
- ✶ Low forward voltage drop
- ✶ High current capability
- ✶ Low reverse leakage current
- ✶ High surge current capability

Application

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

Mechanical Data

- ✶ Case: Heatsink TO-220AB outline
- ✶ 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



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz,resistive or inductive load.
For capacitive load, derate current by 20%

Type Number	SYMBOL	MBR1045CTR	units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	45	V
Maximum RMS Voltage	V_{RMS}	31.5	V
Maximum DC blocking Voltage	V_{DC}	45	V
Maximum Average Forward Rectified Current at T_C =100°C	$I_{F(AV)}$	10.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	120.0	A
Maximum Forward Voltage at 5.0A DC	V_F	0.55	V
Maximum DC Reverse Current @T_A=25°C at rated DC blocking voltage @T_A =100°C	I_R	0.5 40.0	mA
Typical Junction Capacitance (Note 1)	C_J	500	pF
Typical Thermal Resistance (Note 2)	$R_{(JC)}$	2.5	℃/W
Storage Temperature	T_{STG}	-55 to +150	°C
Operation JunctionTemperature	T_J	-55 to +125	°C

Note:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Thermal Resistance from Junction to Case Mounted on Heatsink

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RATING AND CHARACTERISTIC CURVES (MBR1045CTR)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

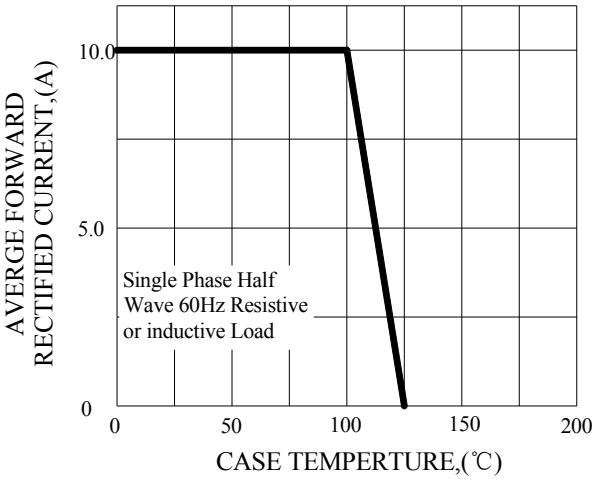


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

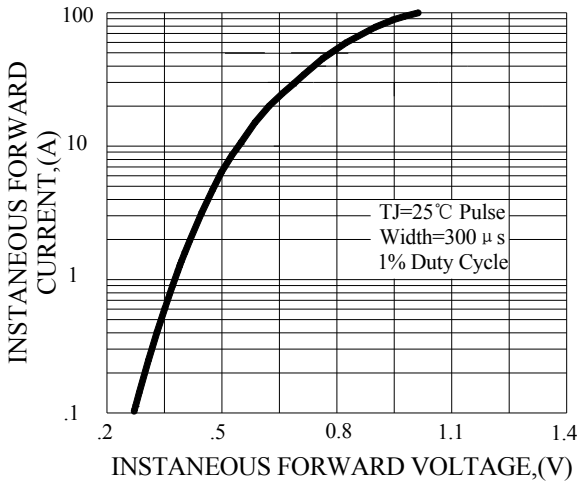


FIG.3-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT

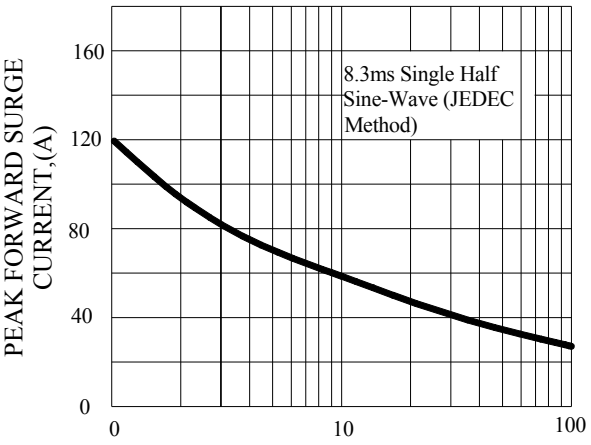
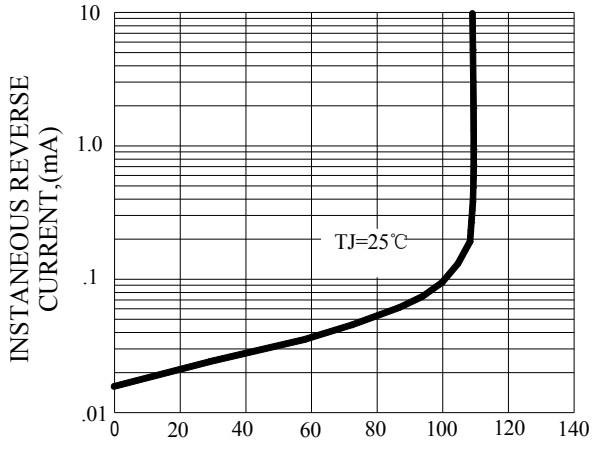


FIG.4-TYPICAL REVERSE CHARACTERISTICS



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