

MBR2045

SCHOTTKY BARRIER RECTIFIER DIODE

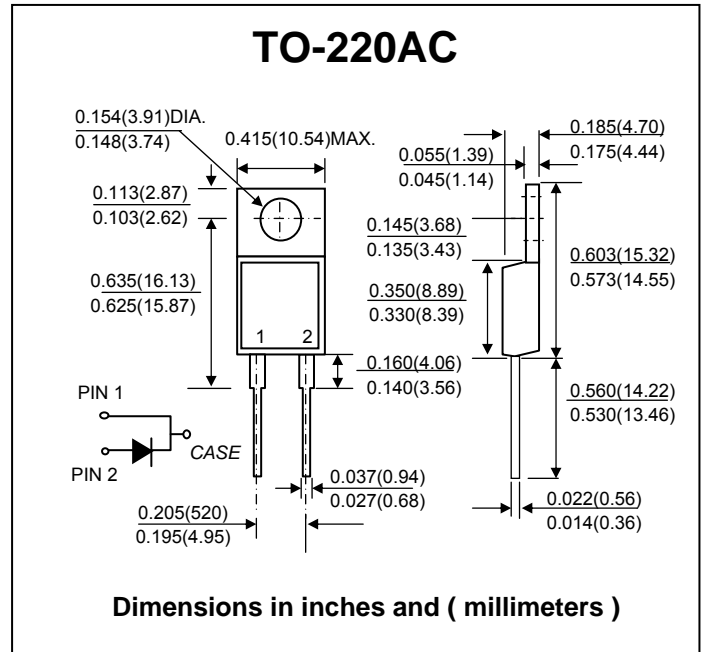
PRV : 45 Volts
I_O : 20 Amperes

FEATURES :

- * High current capability
- * Low forward voltage drop
- * High surge capacity
- * Low power loss, High efficiency
- * Guard ring for transient protection
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : JEDEC TO-220AC molded plastic body
- * Terminals: Plated leads, solderable per MIL-STD-750 Method 2026
- * Polarity: As marked
- * Mounting Position: Any
- * Weight : 2.24 grams (Approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

RATING	SYMBOL	VALUE	UNIT
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 Current at T _c = 135 °C	I _{F(AV)}	20	A
Maximum Peak Forward Surge Current @ 8.3 ms sine wave	I _{FSM}	300	A
Maximum Instantaneous Forward Voltage at I _F = 20 A	V _F	0.65	V
Maximum Reverse Current at @ (T _J = 25 °C)	I _R	1.0	mA
Rated DC Blocking Voltage (Note 1) @ (T _J = 125 °C)	I _{R(H)}	70	mA
Thermal Resistance Junction to Case	R _{θJC}	1.5	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	- 55 to + 175	°C

Note :

(1) Pulse Test : Pulse Width = 300 μs, Duty Cycle = 2%.

RATING AND CHARACTERISTIC CURVES (MBR2045)

FIG.1 - FORWARD CURRENT DERATING CURVE

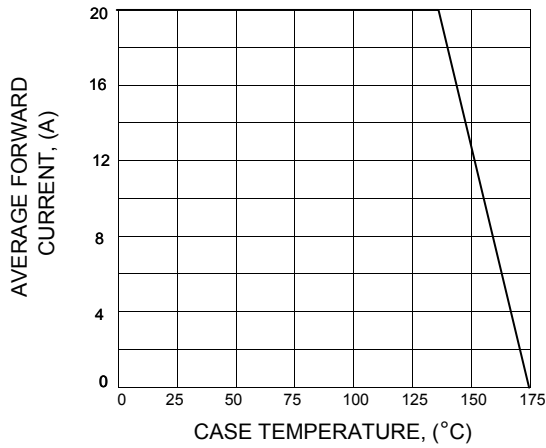


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

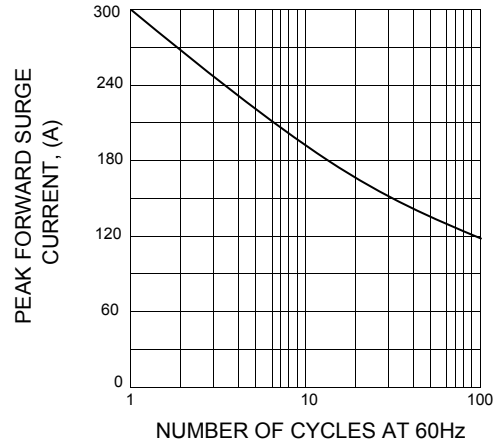


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

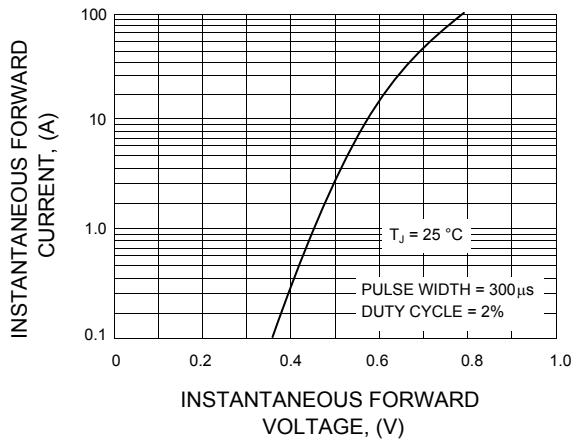


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

