



MBR820CT THRU MBR8100CT

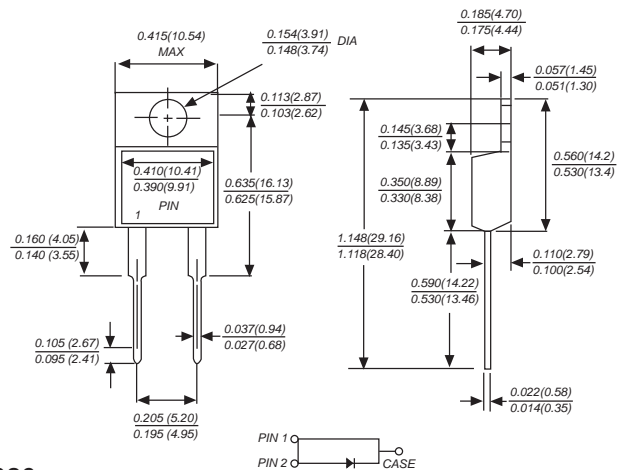
Reverse Voltage - 20 to 100 Volts Forward Current - 8.0 Ampere

SCHOTTKY BARRIER RECTIFIER

Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C, 0.25" (6.35mm) from case for 10 seconds

TO-220AB



Dimensions in inches and (millimeters)

Mechanical Data

Case : JEDEC TO-220AB Molded plastic body
Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
Polarity : Polarity symbol marking on body
Mounting Position : Any
Weight : 0.080 ounce, 2.24 grams

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	SYMBOLS	MBR 820CT	MBR 830CT	MBR 840CT	MBR 845CT	MBR 850CT	MBR 860CT	MBR 870CT	MBR 880CT	MBR 890CT	MBR 8100C	UNITS
		MDD MBR 820CT	MDD MBR 830CT	MDD MBR 840CT	MDD MBR 845CT	MDD MBR 850CT	MDD MBR 860CT	MDD MBR 870CT	MDD MBR 880CT	MDD MBR 890CT	MDD MBR 8100C	
Maximum repetitive peak reverse voltage	V_{RMM}	20	30	40	45	50	60	70	80	90	100	V
Maximum RMS voltage	V_{RMS}	14	21	28	32	35	42	49	56	63	70	V
Maximum DC blocking voltage	V_{DC}	20	30	40	45	50	60	70	80	90	100	V
Maximum average forward rectified current (see fig.1)	$I_{(AV)}$	8.0										A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150										A
Maximum instantaneous forward voltage at 8.0A	V_F	0.65			0.75			0.85			V	
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	I_R	1.0					50.0					A
		15.0					50.0					
Typical junction capacitance (NOTE 1)	C_J	300.0					250					pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	3.0										°C/W
Operating junction temperature range	T_J	-65 to +125					-65 to +150					°C
storage temperature range	T_{STG}	-65 to +150										°C

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance from junction to case



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Ratings And Characteristic Curves

The curve above is for reference only.