

20.0A Schottky Barrier Diode

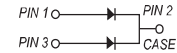
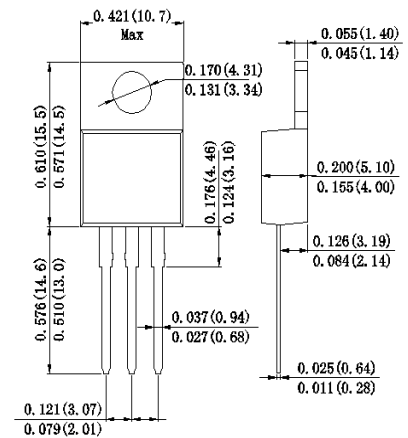
Features

- 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
260°C/10 seconds at terminals

Mechanical Data

- Case : Molded plastic body
- Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity : Polarity symbol marking on body
- Mounting Position : Any

TO-220AB



Dimensions in inches and (millimeters)

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	Symbol	MBR 2040CT	MBR 2045CT	MBR 2060CT	MBR 20100CT	MBR 20120CT	MBR 20150CT	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	40	45	60	100	120	150	V
Maximum RMS voltage	V _{RMS}	28	31.5	42	70	84	105	V
Maximum DC blocking voltage	V _{DC}	40	45	60	100	120	150	V
Maximum average forward rectified current at T _c =110°C per device per diode	I _(AV)	20.0 10.0						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	150.0						A
Maximum instantaneous forward voltage per diode at 10.0A	V _F	0.55		0.70	0.85	0.92		V
Maximum DC reverse current at rated DC blocking voltage T _A =25°C T _A =125°C	I _R	0.5 50			0.05 10			mA
Typical thermal resistance	R _{qJC}	35.0						°C/W
Operating junction temperature range	T _J	-55 to +175						°C
Storage temperature range	T _{STG}	-55 to +175						°C



Ratings and Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

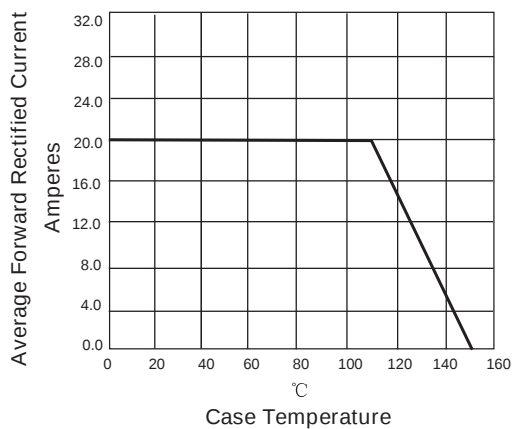


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

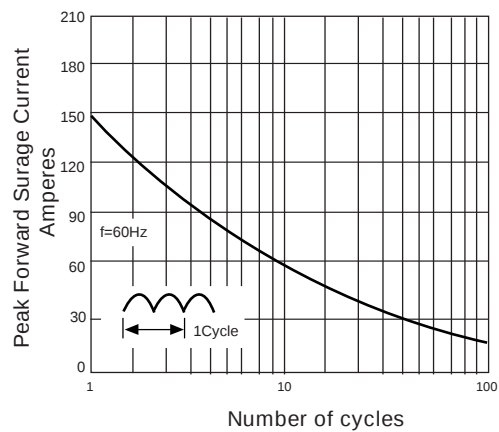


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

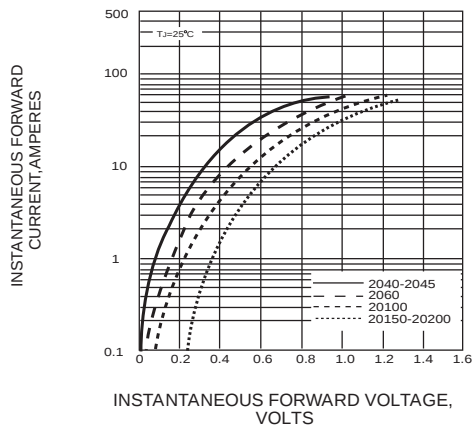
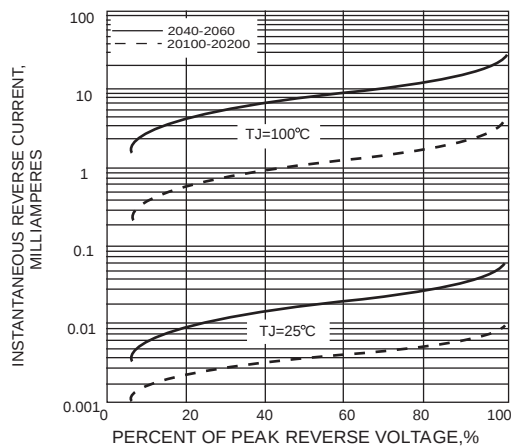
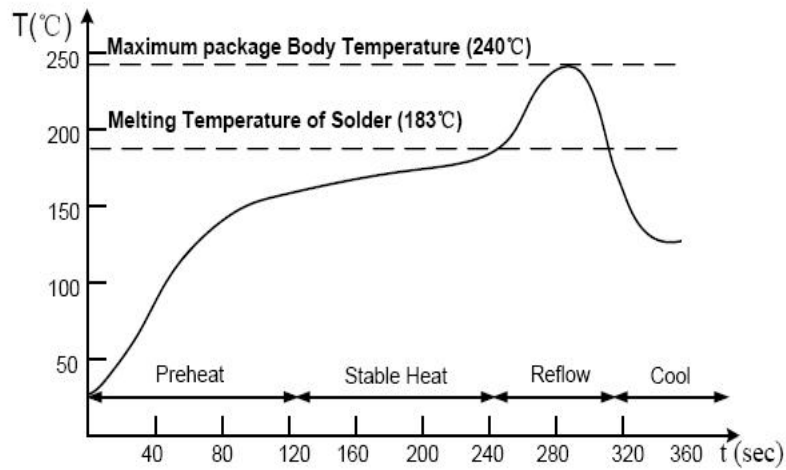


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS





Suggested Soldering Temperature Profile



Note

- Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- The device can be exposed to a maximum temperature of 260°C for 10 seconds.
- Devices can be cleaned using standard industry methods and solvents.
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Package Information

Package	Tube (mm)	Q'TY/Tube (Kpcs)	Box Size (mm)	QTY/Box (Kpcs)	Carton Size (mm)	Q'TY/Carton (Kpcs)
TO-220AB	525*31.9*6.4	0.05	545*150*45	1.0	575*245*170	5.0