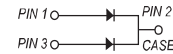
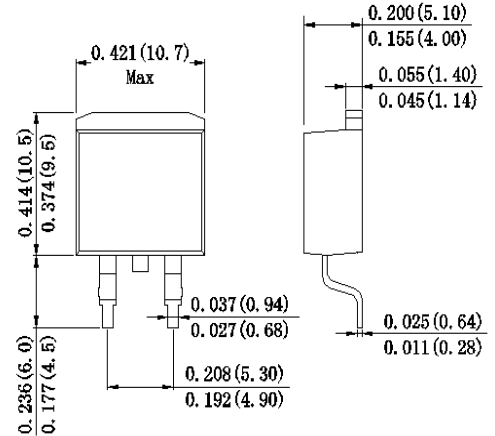


20.0Amp Schottky Barrier Rectifiers

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

TO-263



Dimensions in inches and (millimeters)

Mechanical Data

- 0.421 (10.7) Max
- 0.414 (10.5)
- 0.374 (9.5)
- 0.236 (6.0)
- 0.177 (4.5)
- 0.037 (0.94)
- 0.027 (0.68)
- 0.208 (5.30)
- 0.192 (4.90)
- 0.200 (5.10)
- 0.155 (4.00)
- 0.055 (1.40)
- 0.045 (1.14)
- 0.025 (0.64)
- 0.011 (0.28)

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 2040CT	MBR 2045CT	MBR 2060CT	MBR 20100CT	MBR 20150CT	MBR 20200CT	Units	
Maximum repetitive peak reverse voltage	V_{RRM}	40	45	60	100	150	200	V	
Maximum RMS voltage	V_{RMS}	28	31.5	42	70	105	140	V	
Maximum DC blocking voltage	V_{DC}	40	45	60	100	150	200	V	
Maximum average forward rectified current at $T_c=110^\circ\text{C}$ 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	0.65		0.75	0.85	0.95		V	
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	I_R		0.5 50			0.05 10		mA	
Typical thermal resistance	R_{qJC}	3.5							°C/W
Operating junction temperature range	T_J	-55 to +150							°C
Storage temperature range	T_{STG}	-55 to +150							°C



Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

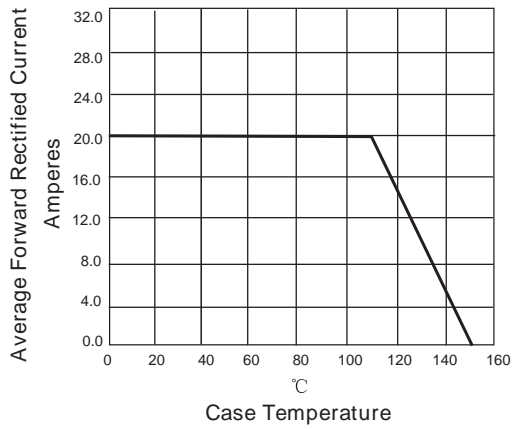


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

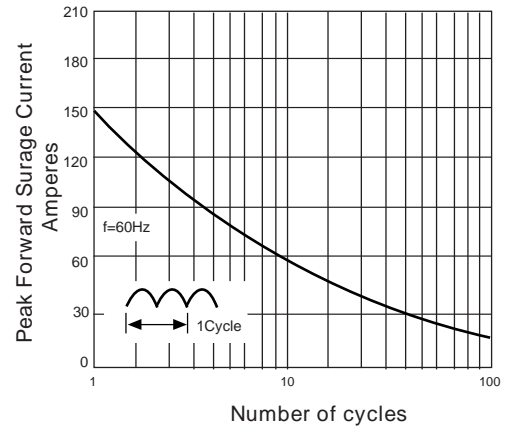


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

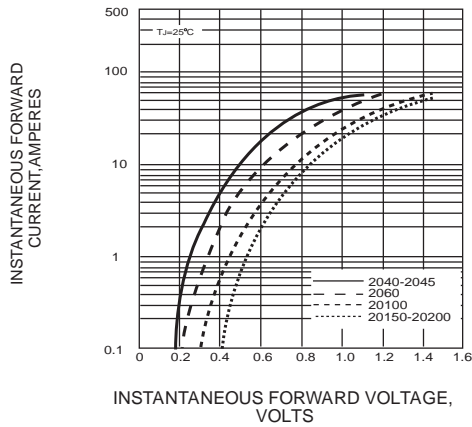
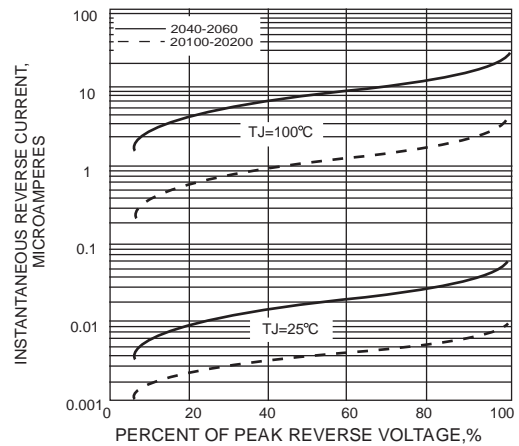


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS





Suggested Soldering Temperature Profile

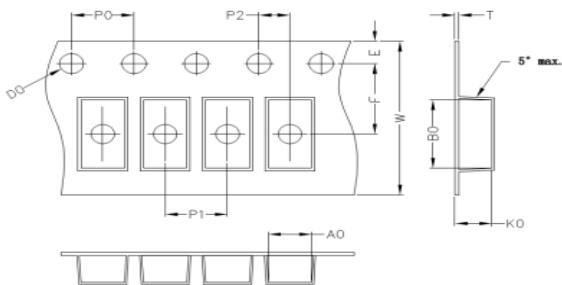


Note

- 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

Carrier Dimension(mm)



A0	B0	K0	D0	E	F
10.5	15.55	4.90	1.50	1.75	11.5
P0	P1	P2	T	W	Tolerance
4.0	16.0	2.0	0.4	24	0.1

Package Specifications

Package	Reel Size	Reel DIA. (mm)	Q'TY/Reel (Kpcs)	Box Size (mm)	QTY/Box (Kpcs)	Carton Size (mm)	Q'TY/Carton (Kpcs)
TO-263	13'	330	0.8	340	0.8	360*360*360	6.4