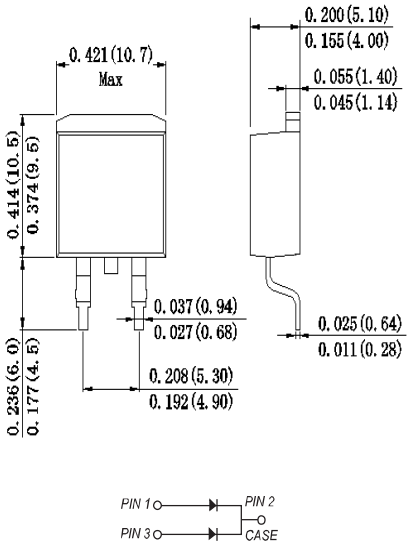
10.0Amp Schottky Barrier Rectifiers

Features

TO-263

- 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℃/10 seconds at terminals



Dimensions in inches and (millimeters)

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

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 current derate by 20%.

Parameter	Symbols	MBR 1040CT	MBR 1045CT	MBR 1060CT	MBR 10100CT	MBR 10150CT	MBR 10200CT	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℃ per device / per diode	$I_{(AV)}$	10.0 5.0						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	120.0						A
Maximum instantaneous forward voltage per diode at 5.0A	V_F	0.65		0.75	0.85	0.95		V
Maximum DC reverse current at rated DC blocking voltage T_A =25℃ / T_A=125℃	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

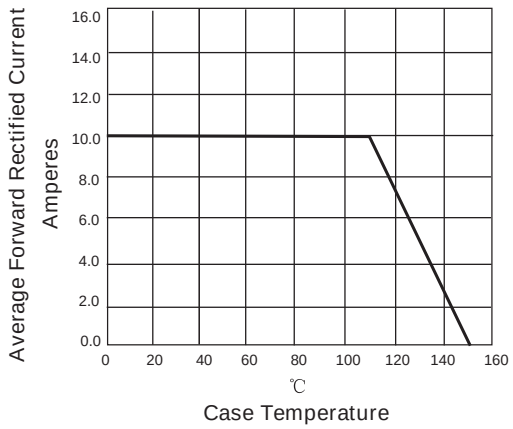


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

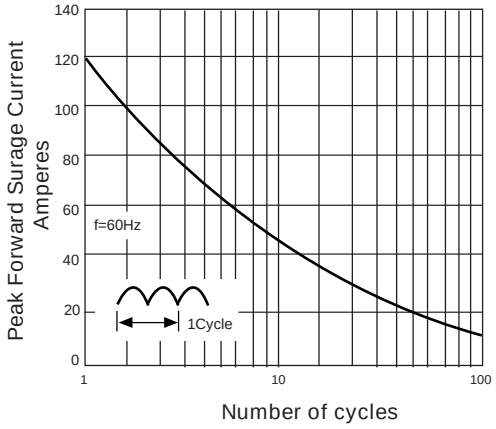


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

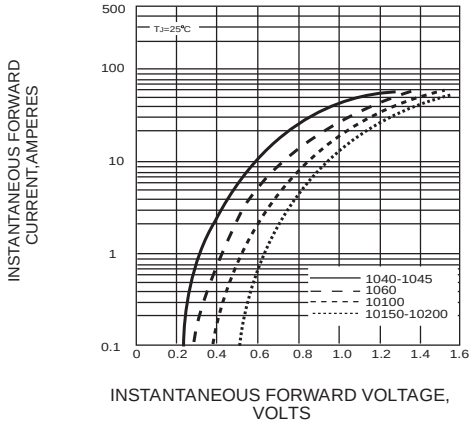
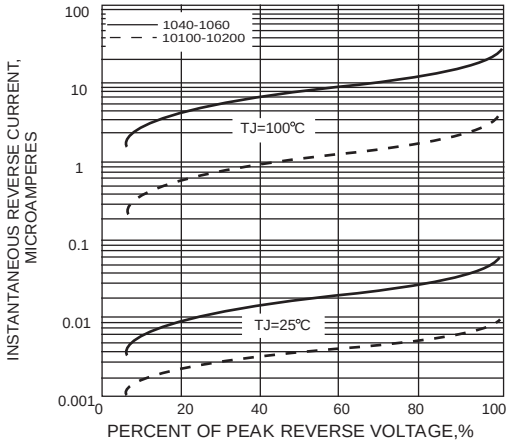
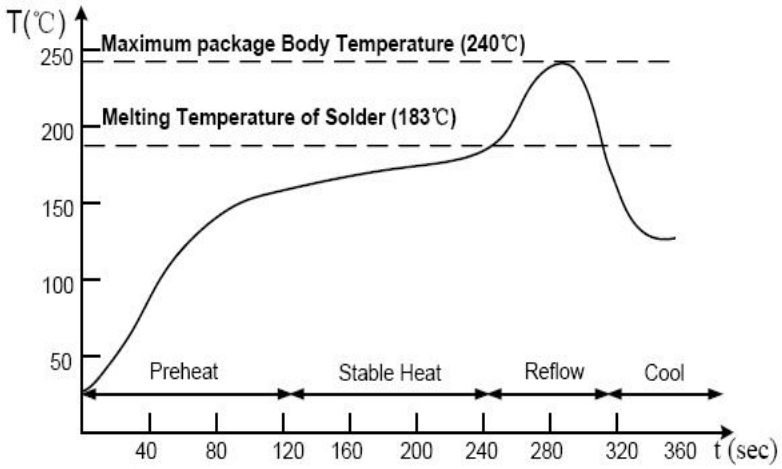


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Suggested Soldering Temperature Profile

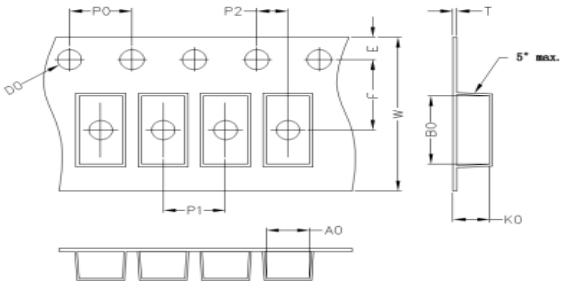


Note

- 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