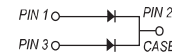
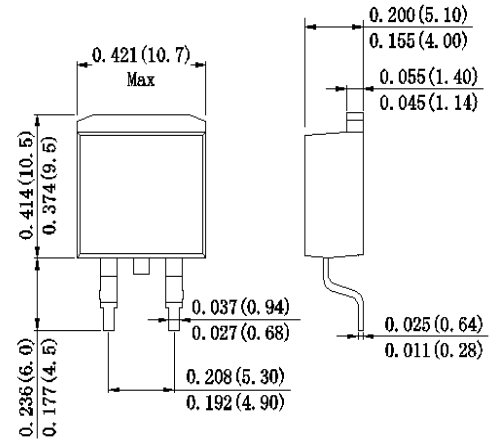


## 40.0Amp Low VF Schottky Barrier Rectifiers

### Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low forward voltage drop
- High forward surge current capability
- High temperature soldering guaranteed  
260°C/10 seconds at terminals

TO-263



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°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 4040LCT	MBR 4045LCT	MBR 4050LCT	MBR 4060LCT	MBR 40100LCT	MBR 40150LCT	MBR 40200LCT	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	40	45	50	60	100	150	200	V
Maximum RMS voltage	$V_{RMS}$	28	31.5	35	42	80	105	140	V
Maximum DC blocking voltage	$V_{DC}$	40	45	50	60	100	150	200	V
Maximum average forward rectified current at $T_c=110^\circ\text{C}$ per device per diode	$I_{(AV)}$	40.0 20.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	300.0							A
Maximum instantaneous forward voltage per diode at 20.0A	$V_F$	0.55		0.60	0.70	0.85		V	
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	$I_R$	0.5 50				0.1 10		mA	
Typical thermal resistance	$R_{qjc}$	3.5						$^\circ\text{C}/\text{W}$	
Operating junction temperature range	$T_J$	-55 to +150						$^\circ\text{C}$	
Storage temperature range	$T_{STG}$	-55 to +150						$^\circ\text{C}$	



Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

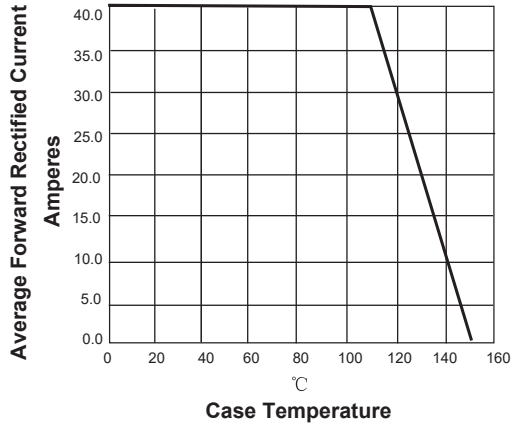


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

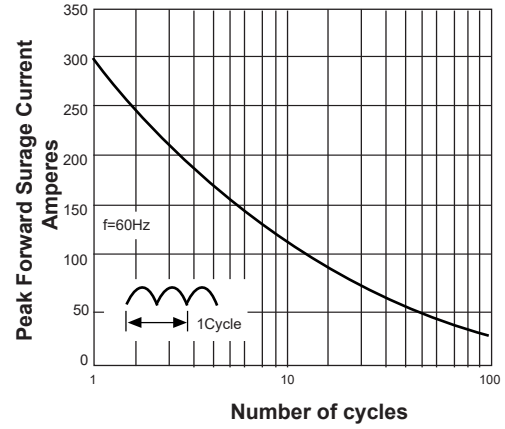


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

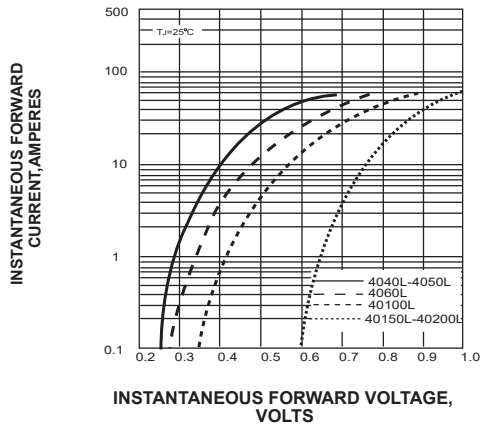
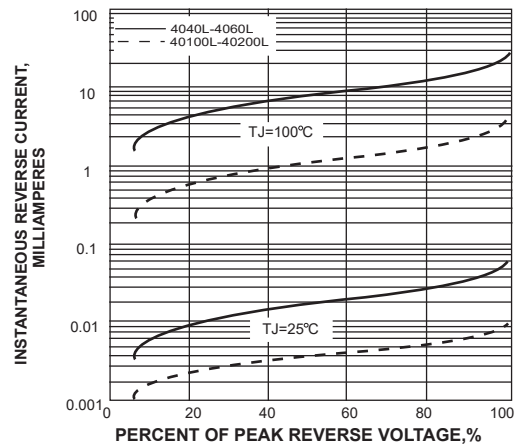


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS





### Suggested Soldering Temperature Profile

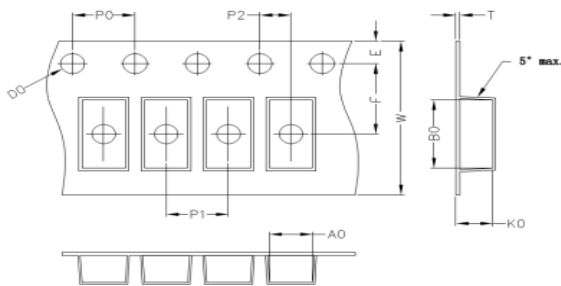


#### Note

- 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