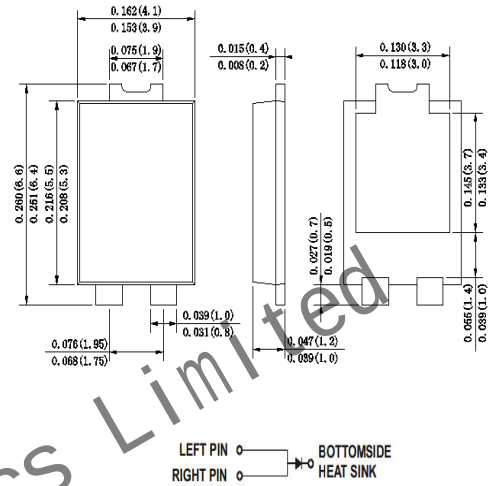


5.0A 100V Trench Schottky Barrier Rectifiers
Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Built-in strain relief, ideal for automated placement
- Low forward voltage drop
- High forward surge current capability
- High temperature soldering guaranteed
260°C/10 seconds at terminals

TO-277B


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

Weight : 0.003 ounce, 0.092 grams

Maximum Ratings (Ta=25°C unless otherwise specified)

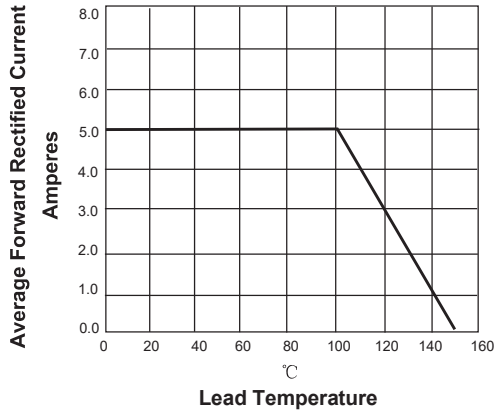
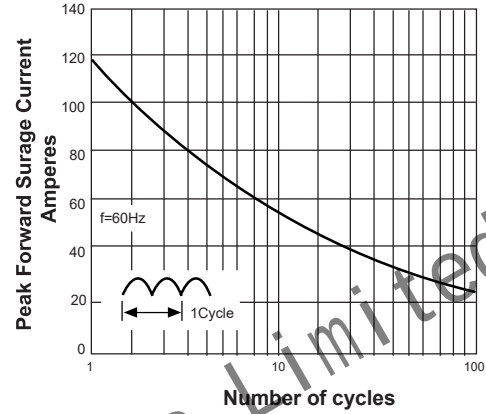
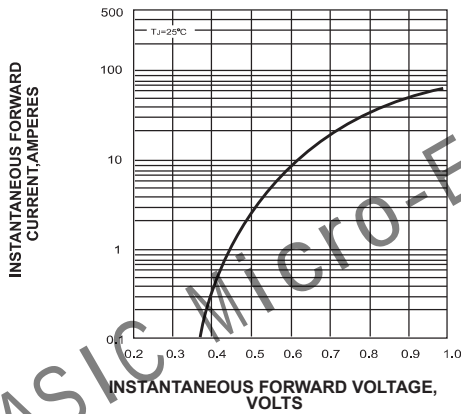
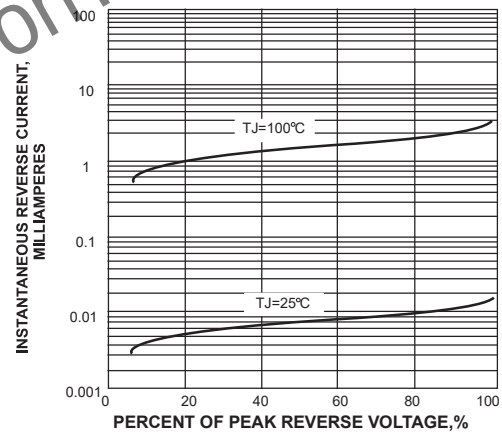
PARAMETER	SYMBOLS	ASB5100LNX0	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	100	V
Maximum RMS voltage	V_{RMS}	70	V
Maximum DC blocking voltage	V_{DC}	100	V
Maximum average forward rectified current at $T_A=100^\circ\text{C}$	$I_{(AV)}$	5.0	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	120.0	A
Typical thermal resistance	R_{qjc}	8	$^\circ\text{C/W}$
Operating junction temperature range	T_J	-55 to +150	$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150	$^\circ\text{C}$

Note: Thermal resistance from junction to case lead mounted on P.C.B. with 10.0 mm x 10.0 mm) copper pad areas

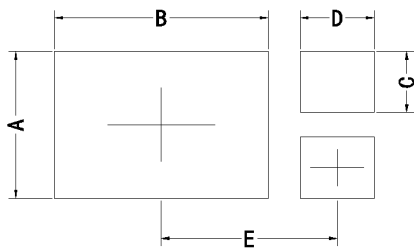
Electrical Characteristics (Ta=25°C unless otherwise specified)

PARAMETER	SYMBOLS	TYPE	MAX	UNITS
Maximum instantaneous forward voltage at 5.0A	V_F	0.54	0.60	V
Maximum DC reverse current at rated DC blocking voltage	I_R	20 5	100 50	μA mA

Ratings And Characteristic Curves

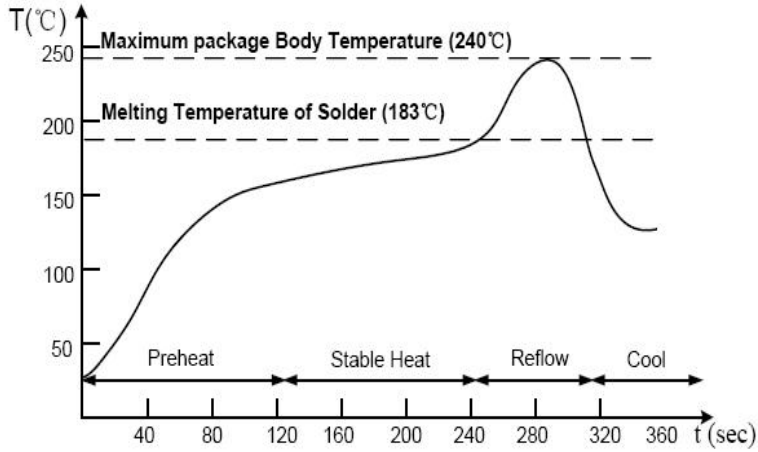
FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

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

FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS


Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	3.60	0.142
B	5.35	0.211
C	1.50	0.059
D	1.85	0.073
E	4.30	0.169

Suggested Soldering Temperature Profile

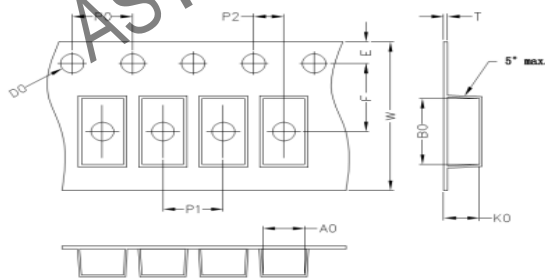


Note

- 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
4.40	6.90	1.30	1.55	1.75	7.50
P0	P1	P2	T	W	Tolerance
4.0	8.0	2.0	0.25	12	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-277B	13'	330	5.0	340	10.0	360*360*360	80