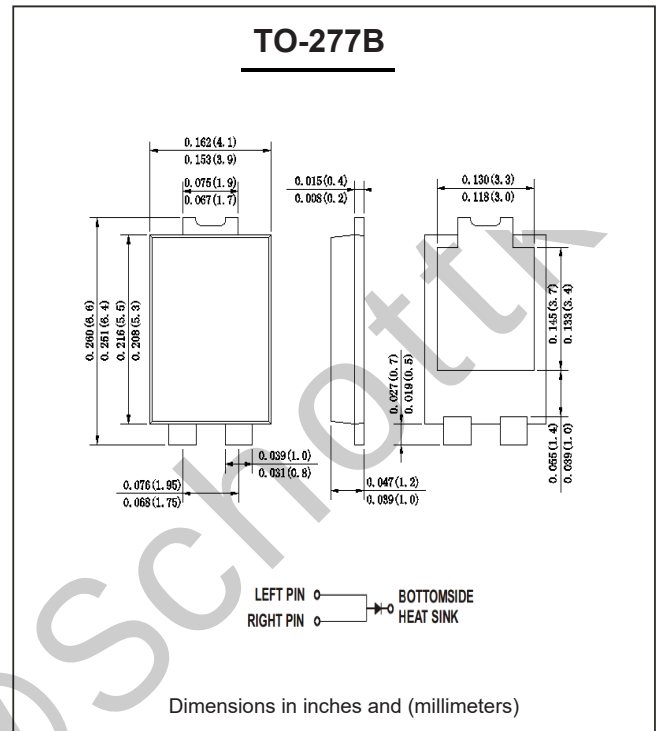


Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Built-in strain relief, ideal for automated placement
- iLow reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed 250°C/10 seconds at terminals

MECHANICAL DATA

- 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 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	SB520	SB540	SB560	SB580	SB5100	SB5150	SB5200	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	20	40	60	80	100	150	200	V
Maximum RMS voltage	V _{RMS}	14	28	42	56	70	105	140	V
Maximum DC blocking voltage	V _{DC}	20	40	60	80	100	150	200	V
Maximum average forward rectified current at T _L =100°C	I _(AV)	5.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	150.0							A
Maximum instantaneous forward voltage at 5.0A	V _F	0.55	0.70	0.85	0.95	V			
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =100°C	I _R	0.5 50	0.05 10				mA		
Typical thermal resistance	R _{qJA}	60.0							°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

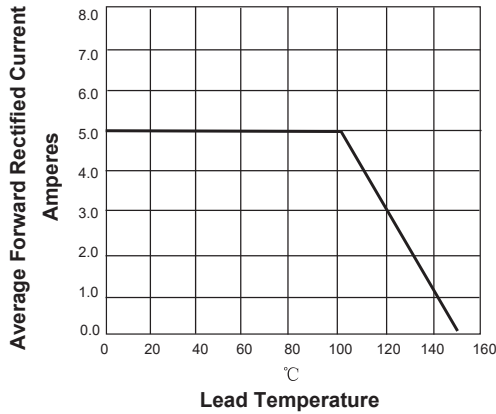


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

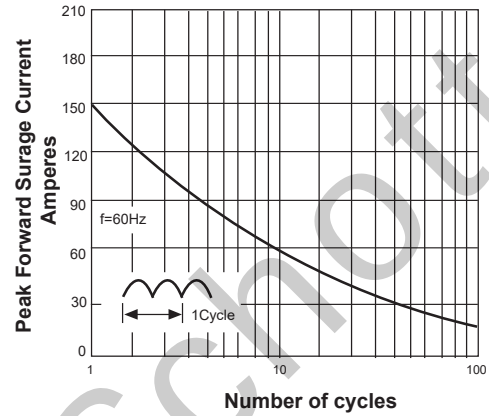


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

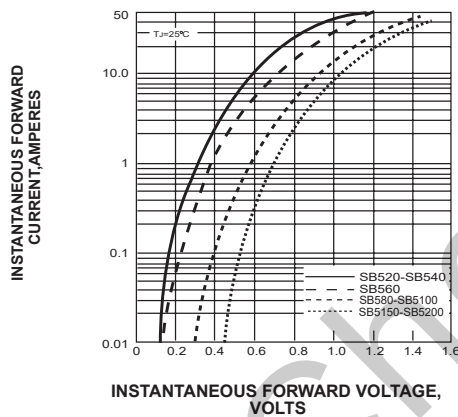
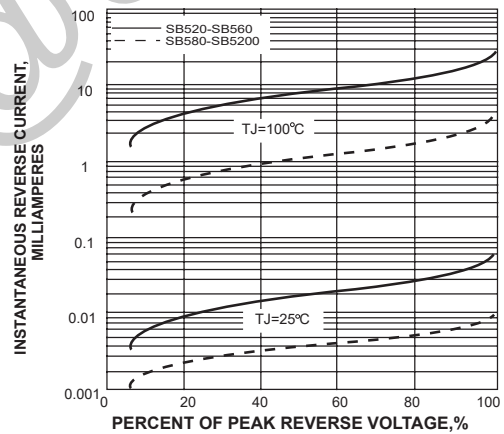
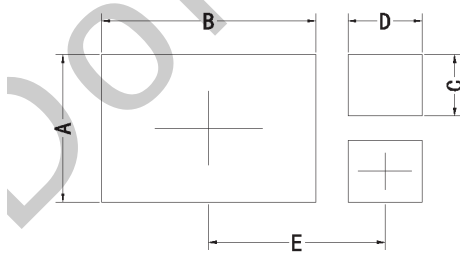


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

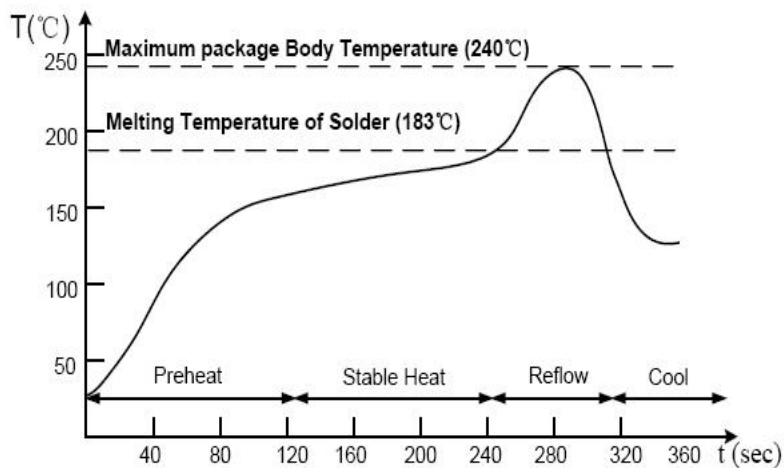


Suggested Pad Layout



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

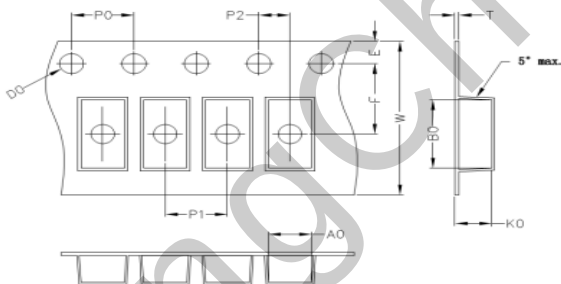


Note

- Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- The device can be exposed to a maximum temperature of 265°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

Important Notice

DongChen Electronics reserves the right to make changes without further notice to any products herein.

DongChen Electronics makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does DongChen Electronics assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages.

“Typical” parameters which may be provided in DongChen Electronics data sheets and/or specifications can and do vary in different applications and actual performance may vary over time.

All operating parameters, including “Typicals,” must be validated for each customer application by the customer’s technical experts.

DongChen Electronics does not convey any license under its patent rights nor the rights of others.

The products listed in this document are designed to be used with ordinary electronic equipment or devices.

Should you intend to use these products with equipment or devices which require an extremely high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, aerospace machinery, nuclear-reactor controllers, fuel controllers, and other safety devices), please be sure to consult with our sales representative in advance.

Head Office

Contact Information:

DongChen Electronics Co.,Ltd.

Address: 2F., No.407, Sec. 2, Longgang Rd.,Zhongli Dist.,
Taoyuan City 32097, Taiwan (R.O.C.)

Tel: 03-284-1808

Fax: 03-284-1404

Mail:dc@dongchen.com.tw

Web:www.dongchen.com.tw