



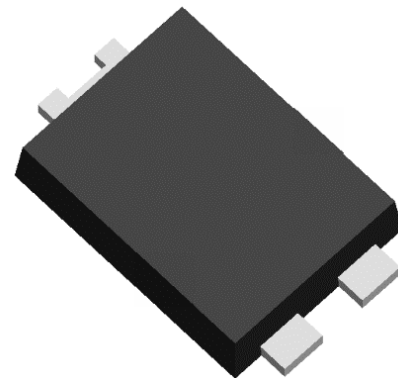
1. Features

- Low leakage current
- Schottky barrier diodes
- Low forward voltage drop.
- High current capability.
- High reliability.
- Meets MSL level 1, per J-STD-020.

2. Mechanical Data

- Case:Molded Plastic,TO-277B.
- Epoxy:UL 94V-0 rate flame retardant.
- Terminals:Plated Leads Solderable per MIL-STD-750,Method-2026.
- Marking:marked on body.

TO-277B



3. Maximum Ratings and Electrical Characteristics

Single Phase,half wave,60Hz,resistive or inductive load.For capacitive load,derate current by 20%.

PARAMETER	SYMBOL	SB05T100L	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	100	V
Maximum RMS Voltage	V _{RMS}	70	V
Maximum DC Blocking Voltage	V _{DC}	100	V
Average Rectified Output Current @T _L =110°C	I _{F(AV)}	8	A
Peak Forward Surge Current 8.3ms @T _j =25°C	I _{FSM}	150	A
Single half sine-wave superimposed @T _j =125°C on rated load (JEDEC Method)		120	
I ² t Rating for Fusing (t < 8.3ms)	I ² t	93.4	A ² S
Maximum Instantaneous Forward Voltage @I _F =5A	V _{FM}	0.6	V
Maximum DC reverse current @T _j =25°C	I _R	0.3	mA
at rated DC blocking voltage @T _j =100°C		15	
Typical Junction Capacitance (Note 1)	C _j	570	pF
Typical Thermal Resistance	R _{θJA}	85	°C/W
	R _{θJL}	15	
	R _{θJC}	10	
Operating Temperature Range	T _j	-55 to+150	°C
Storage Temperature Range	T _{STG}	-55 to+150	°C

Note:
1. Measured at 1.0MHz and Applied reverse Voltage of 4.0V D.C



4. Rating And Characteristic Curves

Fig. 1 Forward Current Derating Curve

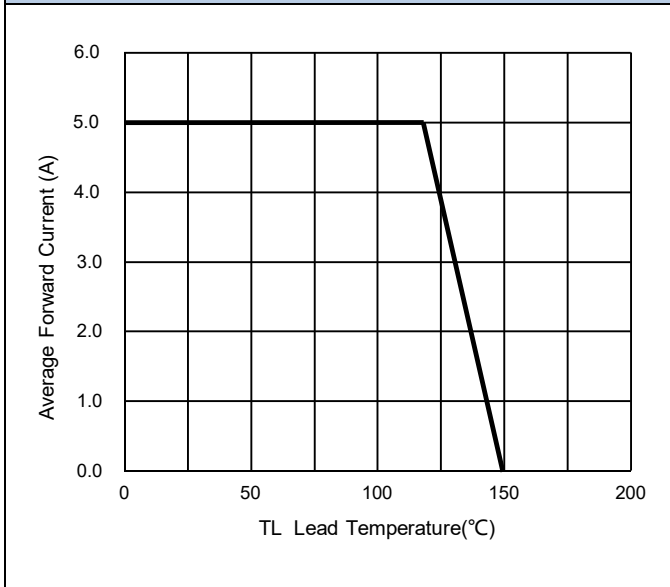


Fig. 2 Typical Forward Characteristics

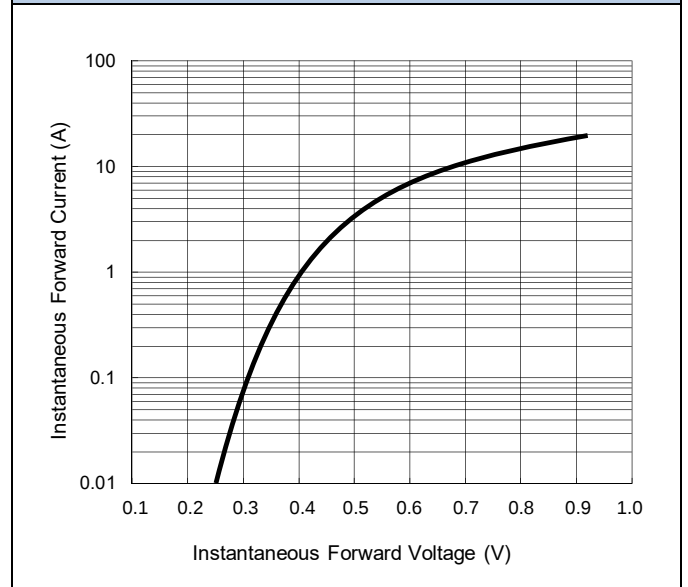


Fig. 3 Forward Surge Current Capability

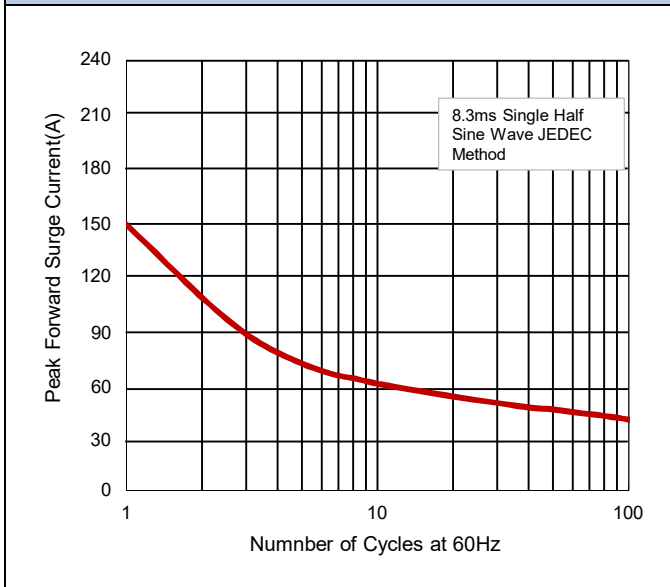
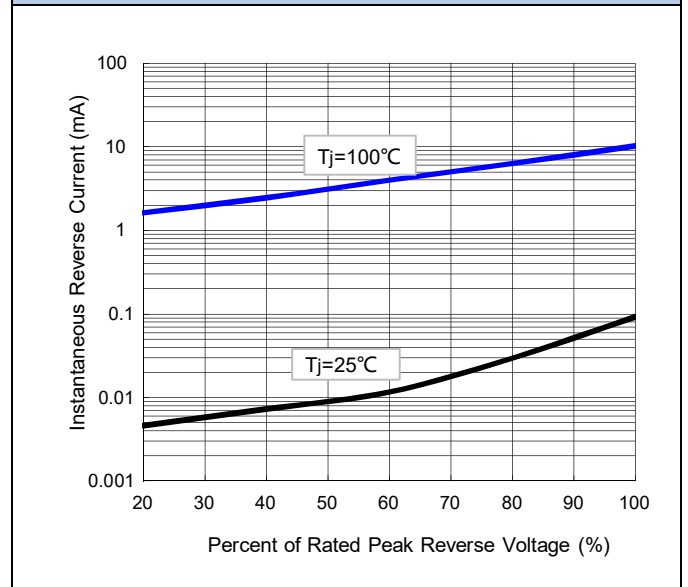
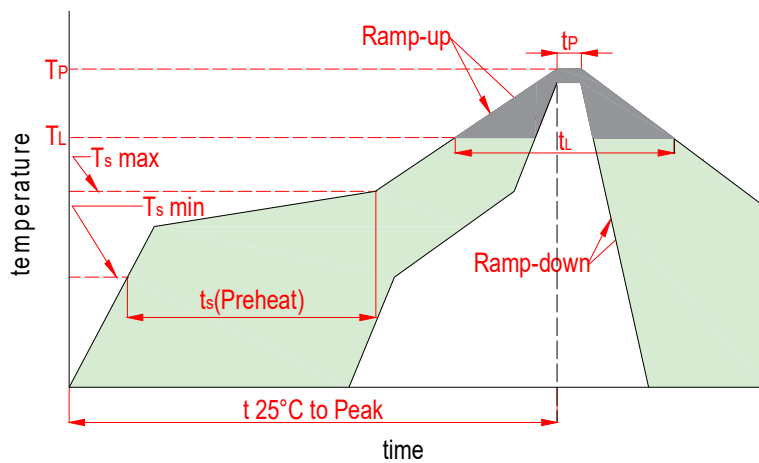


Fig.4 Typical Reverse Characteristics



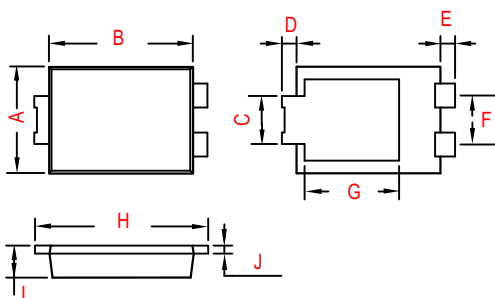


5. Soldering Parameters



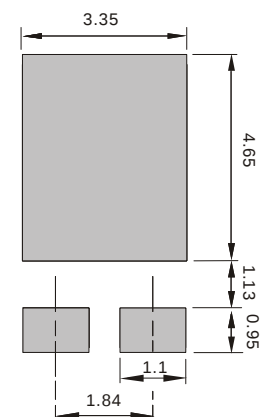
Reflow Condition		Lead-free
Pre Heat	Temp. min($T_s(\min)$)	150℃
	Temp. max($T_s(\min)$)	200℃
	Time(min to max)(t_s)	60~120s
Aver. ramp up rate(Liquidus Temp.)(T_L)to peak		3℃/s max
$T_s(\max)$ to T_L -Ramp-up Rate		3℃/s max
Reflow	Temp. (T_L)(Liquidus)	217℃
	Temp. (t_L)(Liquidus)	60~150s
Peak Temp. (T_p)		260 ^{+0/-5} ℃
Time within actual peak Temp. (t_p)		30s max
Ramp-down Rate		6℃/s max
Time 25℃ to peak Tempe. (T_p)		8 minutes max
Do not exceed		260℃

6. Dimensions

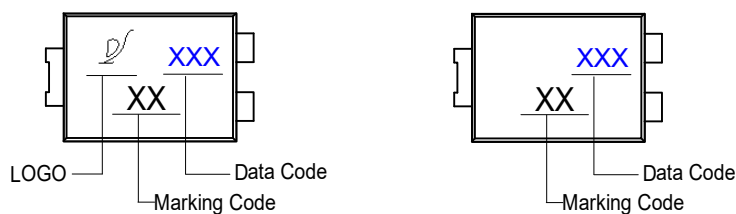


Dimensions	Inches		Millimeters	
	Min	Max	Min	Max
A	0.150	0.165	3.8	4.2
B	0.209	0.216	5.3	5.5
C	0.067	0.075	1.7	1.9
D	0.017	0.026	0.45	0.65
E	0.017	0.026	0.45	0.65
F	0.065	0.076	1.65	1.95
G	0.128	0.151	3.25	3.85
H	0.252	0.260	6.4	6.6
I	0.039	0.047	1.0	1.2
J	0.008	0.018	0.2	0.45

Mounting PAD Layout



7. Part Marking System



8. Package Information

Package	Tape Width (mm)	Reel Size		Quantity(pcs)
		mm	inch	
TO-277B	12	330	13	5000



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