



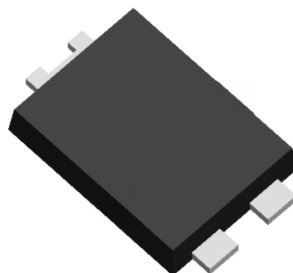
SL1045 THRU SL10100

10.0A Surface Mount Schottky Barrier Rectifiers

1.Features

- Schottky Barrier Chip
- High Thermal Reliability
- Patented Super Barrier Rectifier Technology
- High Forward Surge Capability
- Ultra Low Power Loss,High Efficiency
- Excellent High Temperature Stability
- Pastic material-UL fammability 94V-0

TO-277B



2.Mechanical Data

- Case: TO-277B, molded plastic
- Terminals:Plated Leads Solderable perMIL-STD-202,Method 208
- Meet MSL level 1,per J-STD-020.LF
Maximum peak of 260 °C
- Polarity:Cathode Band
- Mounting Position:Any
- Marking:Type Number
- Lead Free:For RoHS/Lead Free Version



3.Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified Single phase,half wave,60Hz,resistive or inductive load
For capacitive load derate current by 20%

PARAMETER	Symbol	SL1045	SL1050	SL1060	SL1080	SL10100	Unit
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	45	50	60	80	100	V
Maximum RMS Voltage	V _{RWM}						
Maximum DC Blocking Voltage	V _{DC}						
RMS Rectified Voltage	V _{R(RMS)}	32	35	42	56	70	A
Average Rectified Output Current (Note1)	I _{F(AV)}	10					A
Non-Repetitive Peak Forward Surge8.3ms Single Half Sine-Wave Superimposed on rated load(JEDEC Method) (Note2)	I _{FSM}	250					A
I ² t Rating for fusing (t <8.3ms)	I ² t	259.375					A ² s
Forward Voltage Drop T _A =25℃ @I _F =10A	V _{FM}	0.45	0.47	0.50	0.70		V
Peak Reverse Current @T _A =25 ℃	I _R	0.3					mA
At Rated DC Blocking Voltage @T _A =100 ℃		15					
Typical Thermal Resistance Junction to Ambient	R _{θJA}	80					℃/W
	R _{θJL}	10					
Operating Temperature Range	T _J	-55to+150					℃
Storage Temperature Range	T _{STG}	-55to+150					℃

Note:

1.Valid Provided that are kept at ambient temperature at a distance of 9.5mm

2.Fr-4pcb.2oz.Copper,minimum recommend pad layout .18.8mm×14.4.Anode pad dimensions 5.6mm×14.4mm



4. Rating And Characteristic Curves

Fig. 1 Forward Current Derating Curve

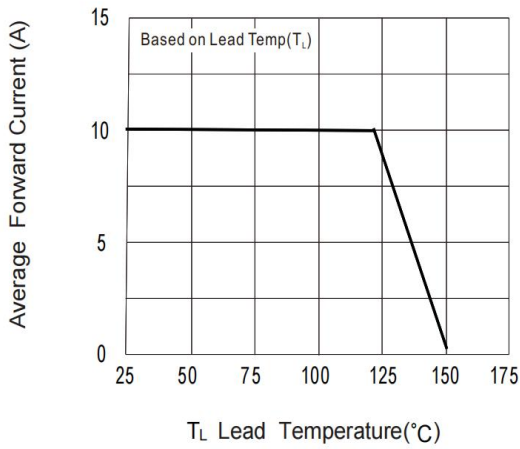


Fig. 2 Typical Forward Characteristics

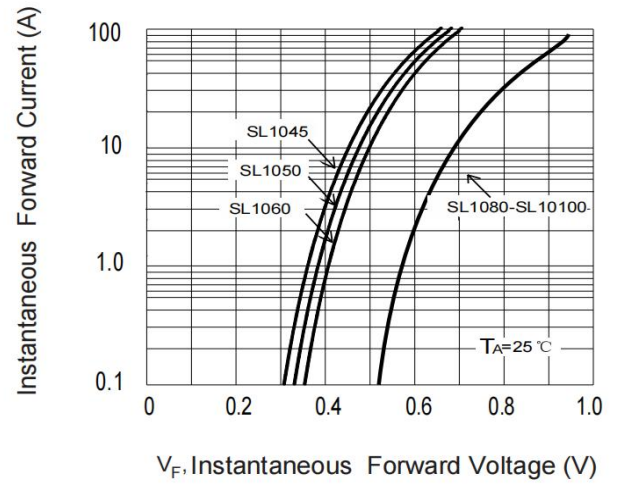


Fig. 3 Forward Surge Current Capability

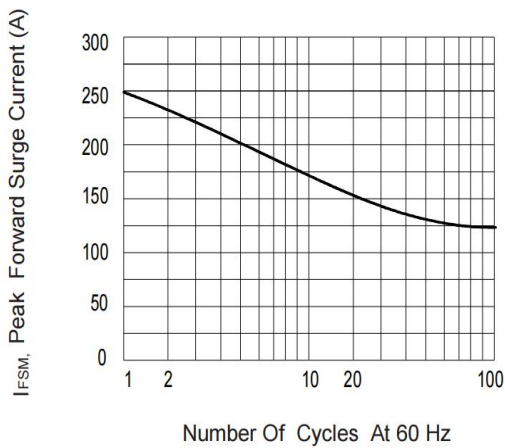
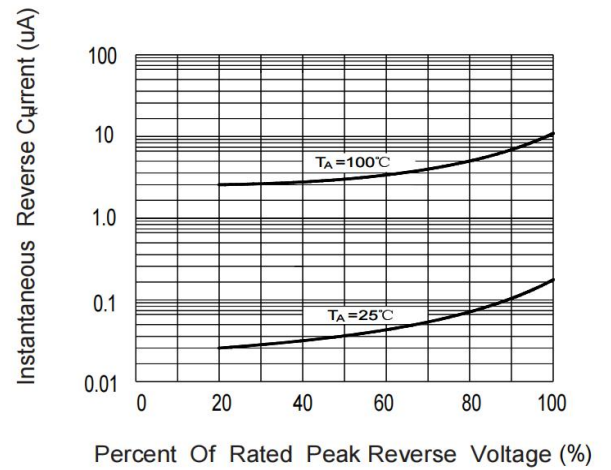


Fig.4 Typical Reverse Characteristics

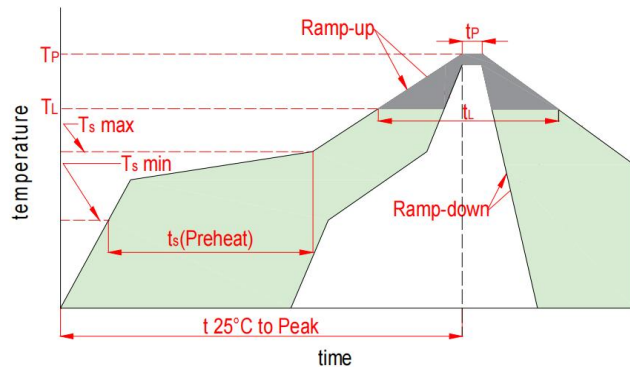




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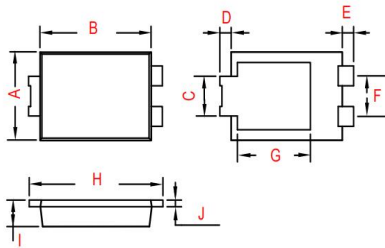
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5. Dimensions



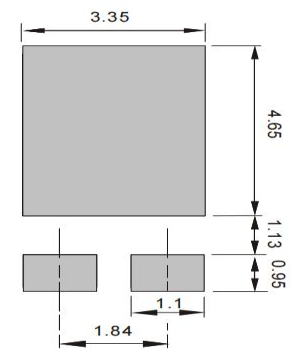
Reflow Condition		Lead-free
Pre Heat	Temp. min($T_s(\min)$)	150°C
	Temp. max($T_s(\min)$)	200°C
	Time(min to max)(t_s)	60~120s
Aver. ramp up rate(Liquidus Temp.)(T_L)to peak		3°C/s max
$T_s(\max)$ to T_L -Ramp-up Rate		3°C/s max
Reflow	Temp.(T_L)(Liquidus)	217°C
	Temp.(t_L)(Liquidus)	60~150s
Peak Temp.(T_p)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

6. Part Marking System

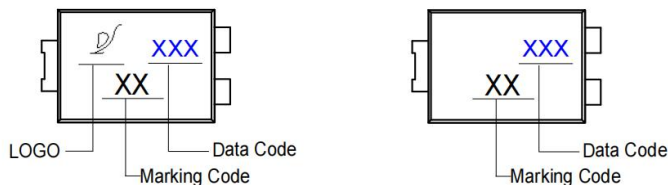


Dimensions	Inches		Millimeters	
	Min	Max	Min	Max
A	0.150	0.165	3.80	4.20
B	0.209	0.217	5.30	5.50
C	0.067	0.075	1.70	1.90
D	0.018	0.026	0.45	0.65
E	0.018	0.026	0.45	0.65
F	0.065	0.065	1.65	1.65
G	0.128	0.152	3.25	3.85
H	0.252	0.260	6.40	6.60
I	0.039	0.047	1.00	1.20
J	0.008	0.018	0.20	0.45

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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