Surface Mount Schottky Barrier Rectifier Voltage 100V Current 5 Amperes

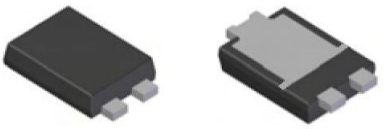
FEATURES AND BENEFITS

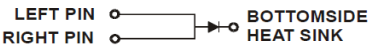
- Low power loss, high efficiency operation
- Low forward voltage drop
- Fast switching capability
- High forward surge capability
- Excellent High Temperature Stability

MECHANICAL DATA

- Epoxy：UL94 V-0 rated flame retardant
- Case: TO-277 Package
- Terminals: Matte Tin annealed over copper
- Weight: Approximated 0.129 grams

Primary Characteristic	
I_O	5A
V_{RRM}	100V
I_{FSM}	100A
V_F Typical=1A, T_J=125°C	0.37V
T_{Jmax}	150°C





Maximum Ratings (Ta=25°C unless otherwise specified)			
Characteristics	**Symbol**	**Value**	**Unit**
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
Working Peak Reverse Voltage	V_{RWM}	100	V
DC Blocking Voltage	V_{DC}	100	V
RMS Reverse Voltage	V_{RMS}	70	V
Average Forward Rectified Current (per diode)	I_O	5	Amps
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	100	Amps

Electrical Characteristics (Ta=25°C unless otherwise specified)						
Characteristics			**Symbol**	**Typ.**	**Max.**	**Unit**
Forward Voltage Drop [1)]	IF=1A	Ta=25°C	V_F	0.45	0.49	V
	IF=5A	Ta=25°C	V_F	0.69	0.73	V
	IF=1A	Ta=125°C	V_F	0.37	0.41	V
	IF=5A	Ta=125°C	V_F	0.60	0.64	V
Reverse Current [2)]	VR=100V	Ta=25°C	I_R	10	30	μA
	VR=100V	Ta=125°C	I_R	5	15	mA

THERMAL CHARACTERISTICS (TA = 25 °C unless otherwise noted)			
Characteristics	**Symbol**	**Value**	**Unit**
Typical Thermal Resistance, junction to ambient	$R_{\theta JA}$	105	°C/W
Operating Temperature Range (in DC Mode)	T_J	-65 to +150	°C
Storage Temperature Range	T_{STG}	-65 to +150	°C

Notes (1): Pulse test: 300μs pulse width, 1% duty cycle,

Notes (2): Pulse width ≦40ms

Notes (3): FR-4 PCB, 2oz copper. Minimum recommended pad layout

RATINGS AND CHARACTERISTICS CURVES

Fig 1. Typical Forward Characteristics

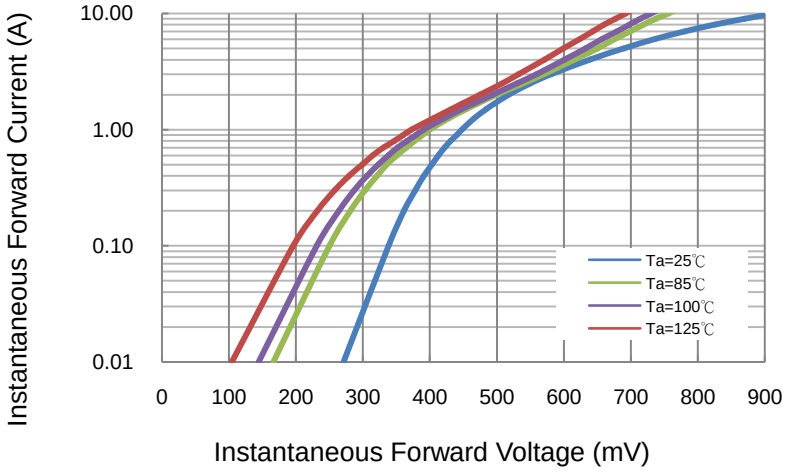


Fig 2. Typical Reverse Characteristics

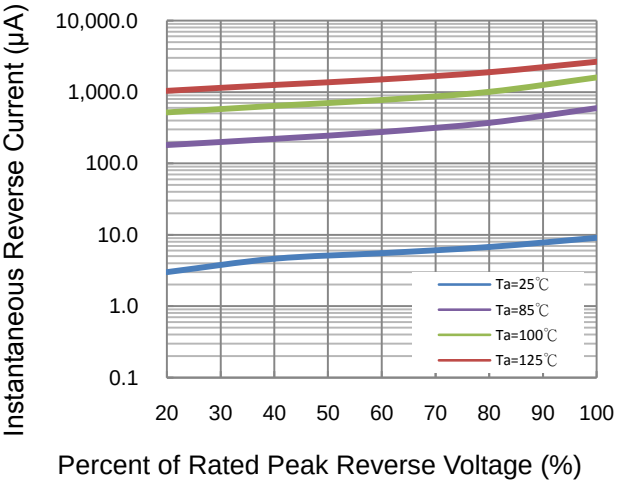


Fig 3. Typical Forward Current Derating Curve

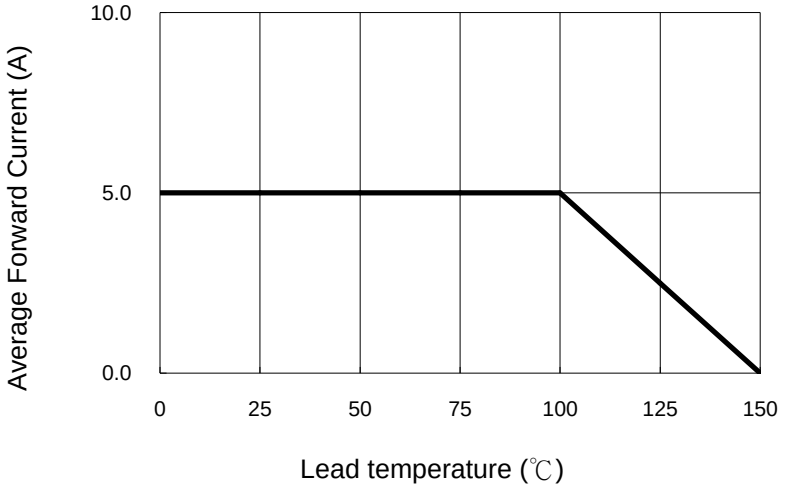
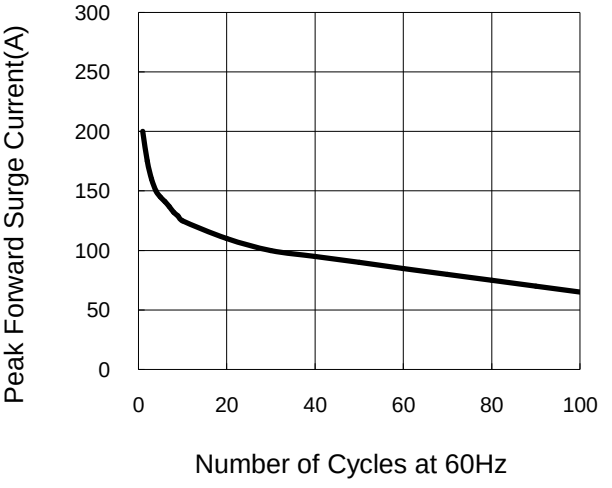
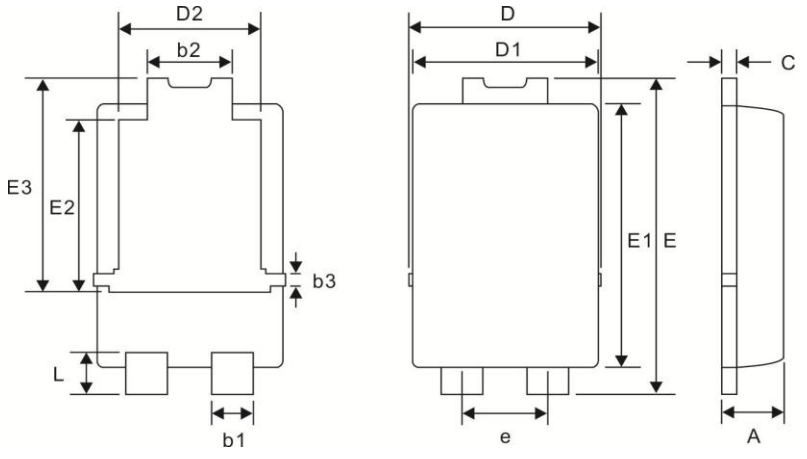


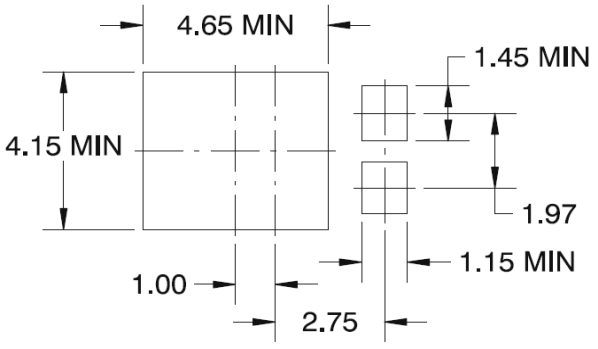
Fig 4. Non-repetitive Forward Surge Current



Package Outline Dimensions (in millimeters)

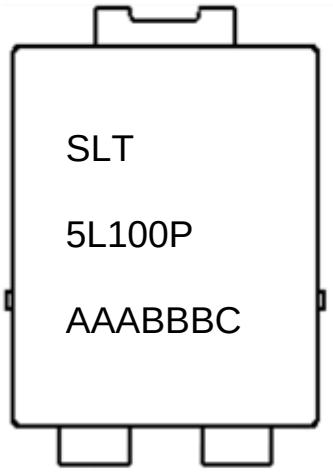


SYMBOL	DIMENSIONS		
	MIN	NOM	MAX
A	1.05	1.10	1.15
b1	0.80	0.90	0.99
b2	1.70	1.79	1.88
b3	0.15	0.25	0.35
C	0.20	0.25	0.33
D	4.00	4.20	4.30
D1	3.90	3.98	4.05
D2	2.95	3.05	3.15
E	6.40	6.50	6.60
E1	5.30	5.40	5.45
E2	3.45	3.55	3.65
E3	4.20	4.40	4.60
e	1.84 Typ		
L	0.75	0.85	0.95



LAND PATTERN RECOMMENDATION

Marking Information



SLT	=Product Type Marking Code
5L100P	=Part Number Marking Code
AAABBBC	=Product Tracking Code