

Surface Mount Schottky Barrier Rectifier Voltage 45V Current 10 Amperes

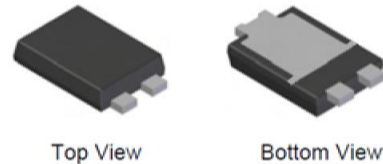
FEATURES AND BENEFITS

- 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	10A
V_{RRM}	45V
I_{FSM}	170A
V_F Typical =5A, $T_J=125^\circ\text{C}$	0.33V
T_{Jmax}	150°C



Maximum Ratings (Ta=25°C unless otherwise specified)						
Characteristics			Symbol	Value		Unit
Peak Repetitive Reverse Voltage			V _{RRM}	45		V
Working Peak Reverse Voltage			V _{RWM}	45		V
DC Blocking Voltage			V _{DC}	45		V
RMS Reverse Voltage			V _{RMS}	32		V
Average Forward Rectified Current (per diode)			I _O	10		Amps
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)			I _{FSM}	170		Amps
Electrical Characteristics (Ta=25°C unless otherwise specified)						
Characteristics			Symbol	Typ.	Max.	Unit
Forward Voltage Drop ⁽¹⁾	IF=5A	Ta=25°C	V _F	0.42	0.46	V
	IF=10A	Ta=25°C	V _F	0.48	0.52	V
	IF=5A	Ta=125°C	V _F	0.33	0.37	V
	IF=10A	Ta=125°C	V _F	0.42	0.46	V
Reverse Current ⁽²⁾	VR=45V	Ta=25°C	I _R	15	45	µA
	VR=45V	Ta=125°C	I _R	5	15	mA

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

Notes (2): Pulse width $\leq 40\text{ms}$

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

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

RATINGS AND CHARACTERISTICS CURVES

Fig 1. Typical Instantaneous Forward Characteristics

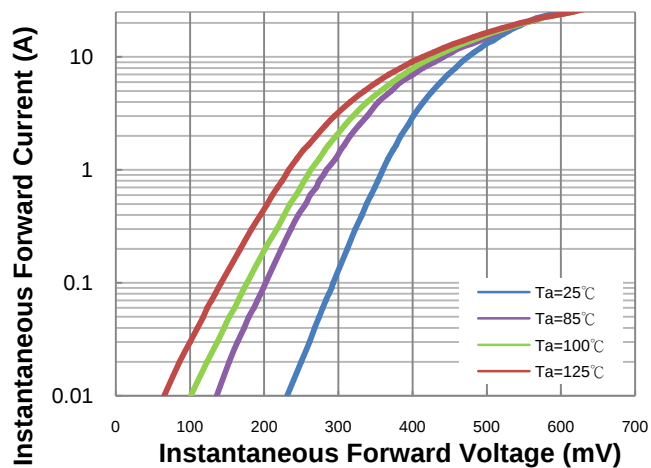


Fig 2. Typical Reverse Characteristics

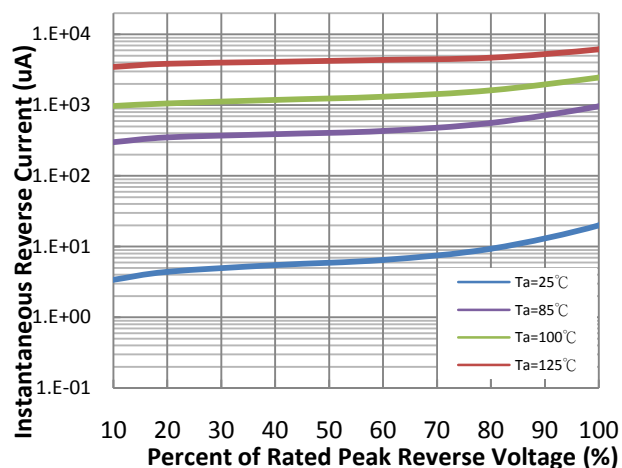


Fig 3. Typical Forward Current Derating Curve

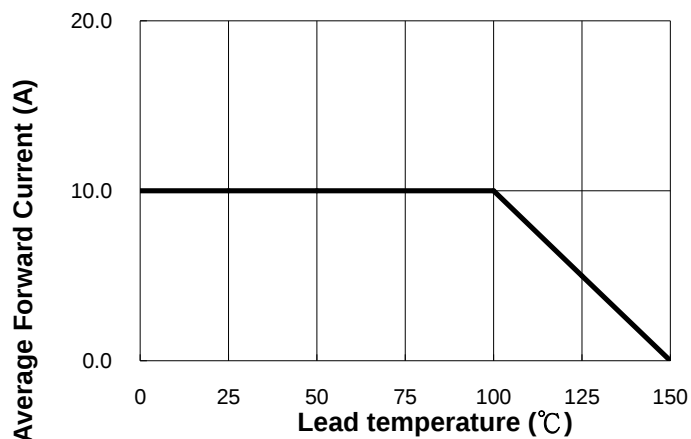
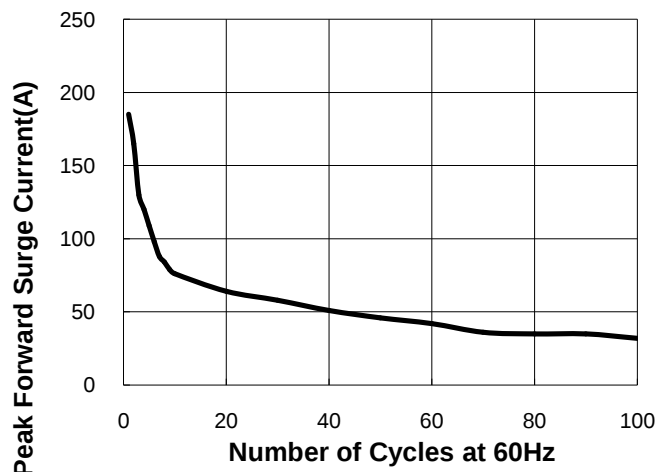
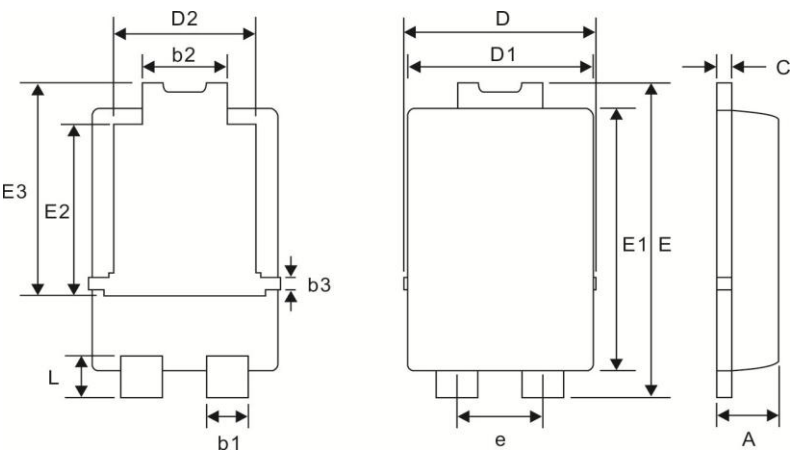


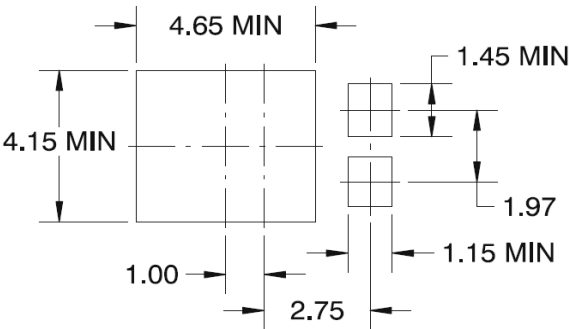
Fig 4. Max. Non-repetitive Forward Surge Current



Package Outline Dimensions (in millimeters)

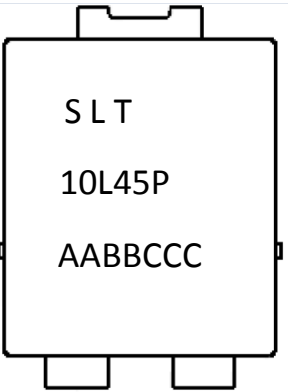


SYMBOL	DIMENSIONS		
	MIN	NOM	MAX
A	1.05	1.10	1.15
b1	0.80	0.90	0.99
b2	1.70	1.79	1.88
b3	0.15	0.25	0.35
C	0.20	0.25	0.33
D	4.00	4.20	4.30
D1	3.90	3.98	4.05
D2	2.95	3.05	3.15
E	6.40	6.50	6.60
E1	5.30	5.40	5.45
E2	3.45	3.55	3.65
E3	4.20	4.40	4.60
e	1.84 Typ		
L	0.75	0.85	0.95



LAND PATTERN RECOMMENDATION

Marking Information



- SLT

10L45P

AABBBBB
- SLT

10L45P

AABBBBB
- =Product Type Marking Code

=Part Number Marking Code

=Product Tracking Code