

Surface Mount Schottky Barrier Rectifier Voltage 50V Current 15Amperes

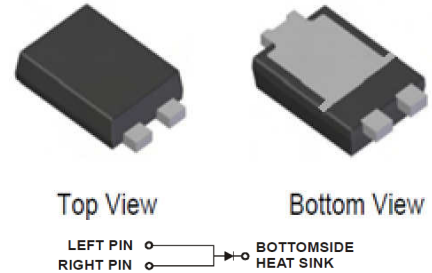
FEATURES

- Low Profile Design for MobileDevice
- Ideal for SMT Mounting
- Low forward voltage drop
- High forward surge capability
- Excellent High Temperature Stability

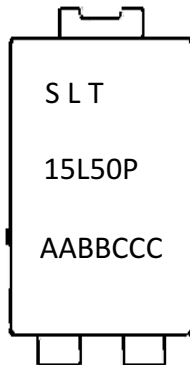
MECHANICAL DATA

- Epoxy : UL94 V-0 rated flame retardant
- Case: TO-277
- Terminals: Lead solderable
- Weight: Approximated 0.129grams

Primary Characteristic	
I_O	20A
V_{RRM}	50V
I_{FSM}	275A
$V_F(I_F=5.0A), T_A=125^{\circ}C$	0.29V
T_{Jmax}	125°C



Marking Information



SL T = Product Type Marking Code

15L50PU= Part Number Marking Code

AABBCCC =Product Tracking Code

Maximum Ratings $T_a=25^{\circ}C$ unless otherwise specified			
Characteristics	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	V
Working Peak Reverse Voltage	V_{RWM}	50	V
Maximum DC Blocking Voltage	V_{DC}	50	V
RMS Reverse Voltage	V_{RMS}	35	V
Maximum Average Forward Rectified Current	I_O	15	A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	275	A
Operating Temperature Range - in DC Forward Mode	T_J	-65to +125	°C
	T_{Jmax}	125	°C
Storage Temperature Range	T_{STG}	-65to +150	°C

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

Electrical Characteristics (Ta=25°C unless otherwise specified)				
Characteristics	Symbol	Value	Unit	
Forward Voltage	V _F	Typ.	Max.	
I _F =5.0A, T _A =25°C		0.39	0.44	V
I _F =15.0A, T _A =25°C		0.49	0.53	V
I _F =5.0A, T _A =125°C		0.29	0.34	V
I _F =15.0A, T _A =125°C		0.39	0.46	V
Maximum Reverse Current at Rated V _{RRM}	I _R	Typ.	Max.	
VR=50V,T _A =25°C		-	200	μA
VR=50V,T _A =125°C		10	25	mA
Thermal Characteristics				
Characteristics	Symbol	Value	Unit	
Typical thermal resistance, junction to ambient	R _{θJA}	70	°C /W	
Typical thermal resistance, junction to terminal	R _{θJT}	5	°C /W	

Notes:(2) Device mounted on FR-4 substrate, 2oz copper, with minimum recommended pad layout.

Notes:(3) Short duration pulse test used to minimize self-heating effect.

Notes:(4) Device might risk thermal failure during applied reverse bias, while typical T_c > 105°C is measured from die straight up to top center of the casesurface.

Characteristics Curves

Fig.1 Typical Instantaneous Forward Characteristics

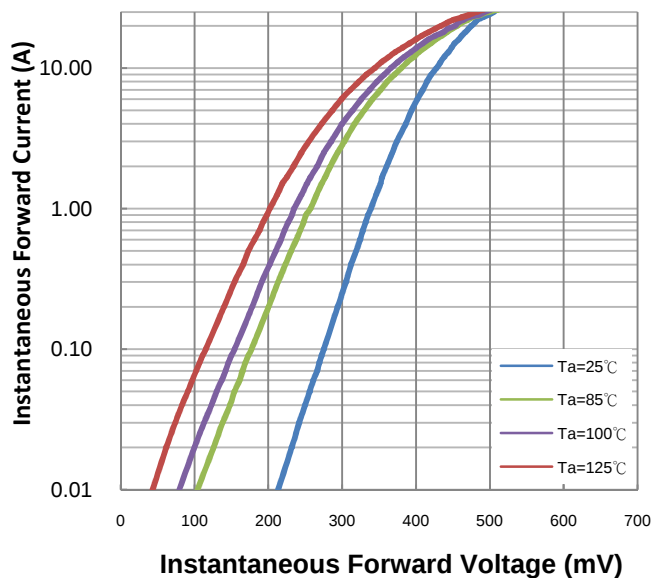


Fig.2 Typical Reverse Characteristics

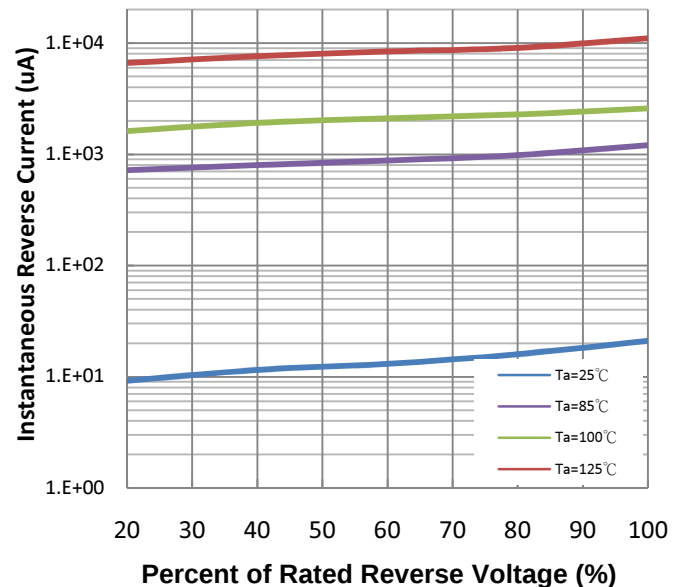


Fig.3 Typical Forward Current Derating Curve

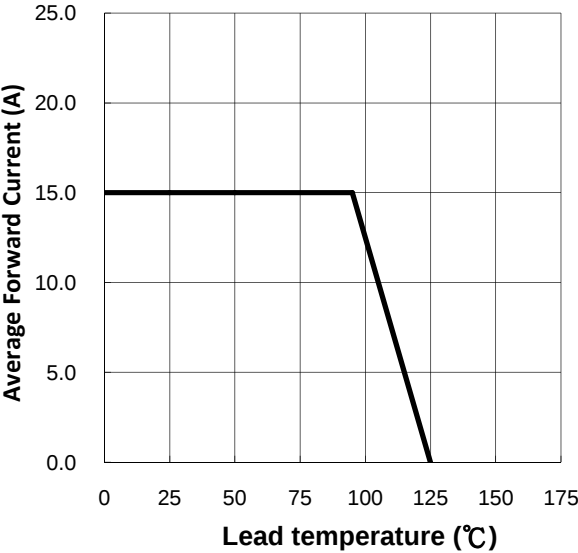
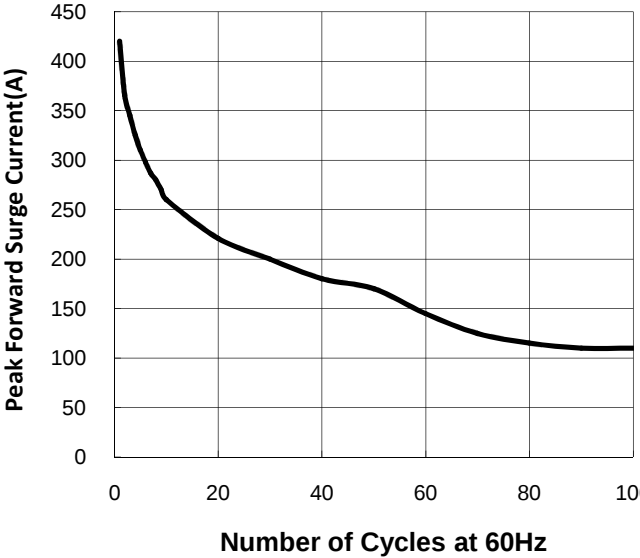
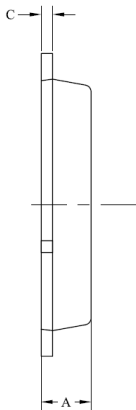
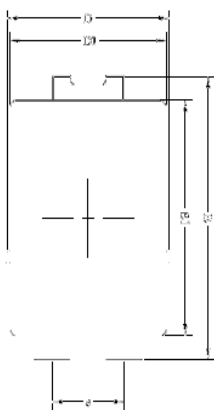
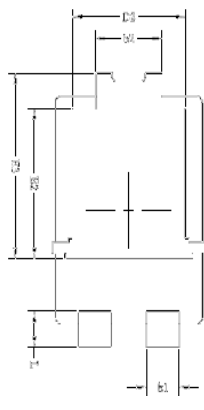


Fig.4 Max. Non-repetitive Forward Surge Current



Package Outline Dimensions



	MIN	NOM	MAX
A	1.05	1.10	1.15
b1	0.80	0.90	0.95
b2	1.70	1.79	1.88
b3	0.15	0.25	0.35
C	0.20	0.25	0.30
D	4.00	4.20	4.40
D1	3.90	3.98	4.06
D2	2.95	3.05	3.15
E	6.40	6.50	6.60
E1	5.30	5.40	5.50
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

Unit: mm

