

Dual Common-Cathode Ultra Low VF Schottky Rectifier

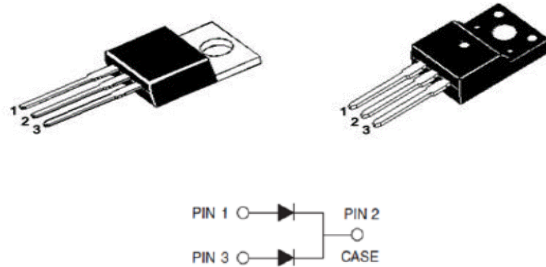
FEATURES AND BENEFITS

- 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-220AB / ITO-220AB Package
- Terminals: Matte Tin annealed over copper
- Weight: Approximated 2.03 grams

Primary Characteristic	
I_O	2X15A
V_{RRM}	150V
I_{FSM}	180A
V_F Typical=1.25A, $T_J=125^\circ\text{C}$	0.40V
T_{Jmax}	175°C



Maximum Ratings (Ta=25°C unless otherwise specified)						
Characteristics			Symbol	Value		Unit
Peak Repetitive Reverse Voltage			V _{RRM}	150		V
Working Peak Reverse Voltage			V _{RWM}	150		V
DC Blocking Voltage			V _{DC}	150		V
RMS Reverse Voltage			V _{RMS}	105		V
Average Forward Rectified Current (per diode)			I _O	15		Amps
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)			I _{FSM}	180		Amps
Electrical Characteristics (Ta=25°C unless otherwise specified)						
Characteristics			Symbol	Typ.	Max.	Unit
Forward Voltage Drop ¹⁾	IF=1.25A	Ta=25°C	V _F	0.46	0.50	V
	IF=15A	Ta=25°C	V _F	1.18	1.22	V
	IF=1.25A	Ta=125°C	V _F	0.40	0.44	V
	IF=15A	Ta=125°C	V _F	0.70	0.74	V
Reverse Current ²⁾	VR=150V	Ta=25°C	I _R	8	25	µA
	VR=150V	Ta=125°C	I _R	3	10	mA

THERMAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)				
Characteristics		Symbol	Value	Unit
Typical Thermal Resistance, junction to case	TO-220AB	$R_{\theta JC}$	2.8	$^\circ\text{C/W}$
Typical Thermal Resistance, junction to case	ITO-220AB	$R_{\theta JC}$	4.0	$^\circ\text{C/W}$
Operating Temperature Range (in DC Mode)		T_J	-65 to +175	$^\circ\text{C}$
Storage Temperature Range		T_{STG}	-65 to +150	$^\circ\text{C}$

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

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

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

RATINGS AND CHARACTERISTICS CURVES

Fig 1. Typical Forward Characteristics

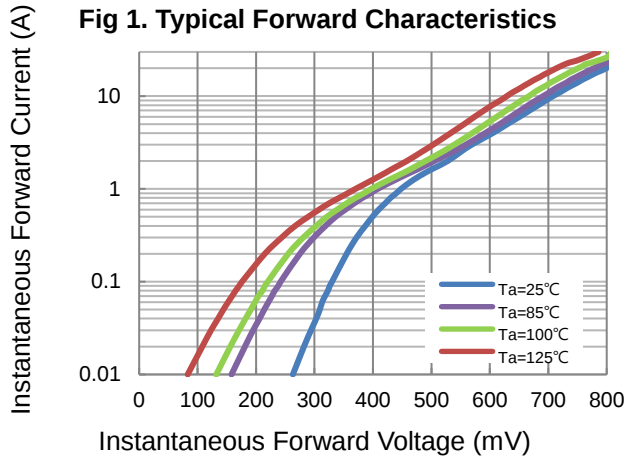


Fig 2. Typical Reverse Characteristics

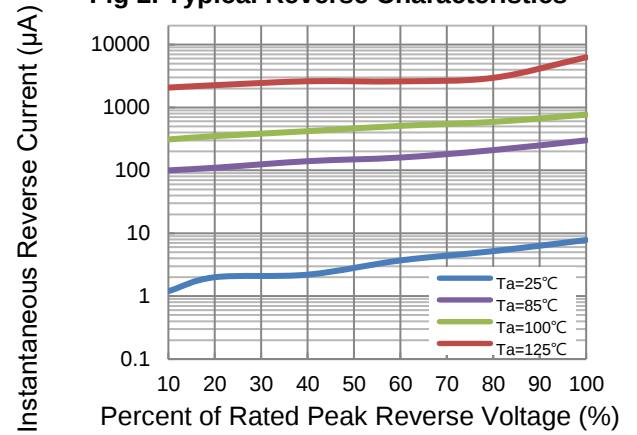


Fig 3. Typical Forward Current Derating Curve

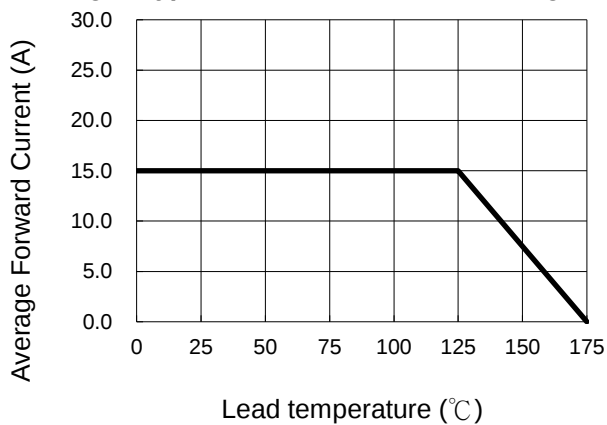
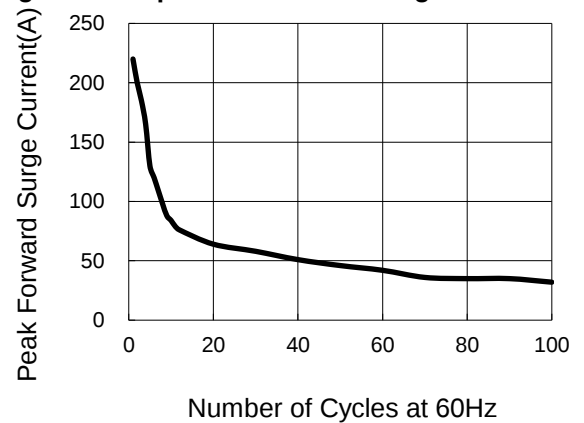
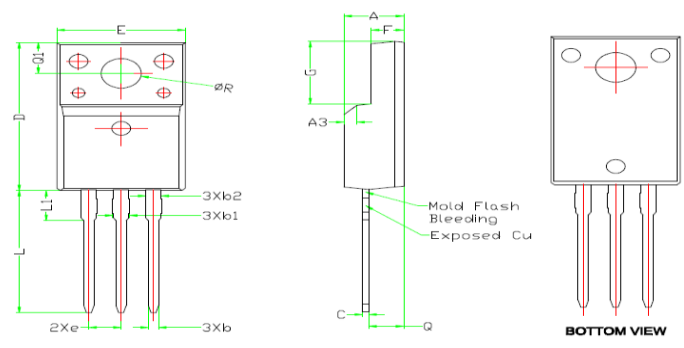


Fig 4. Non-repetitive Forward Surge Current



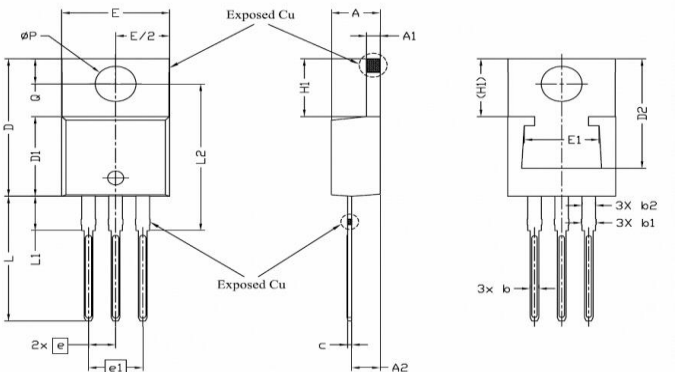
Package Outline Dimensions (in millimeters)

ITO-220				
SYMBOL	Dimensions			
	Millimeters		Inches	
	Min	Max	Min	Max
A	4.60	4.80	0.18	0.19
b	0.70	0.91	0.03	0.04
b1	1.20	1.47	0.05	0.06
b2	1.10	1.30	0.04	0.05
C	0.45	0.63	0.02	0.02
D	15.80	15.97	0.62	0.63
e	2.29	2.79	0.09	0.11
E	10.00	10.30	0.39	0.41
F	2.44	2.64	0.10	0.10
G	6.50	6.90	0.26	0.27
L	12.90	13.30	0.51	0.52
L1	3.13	3.33	0.12	0.13
Q	2.65	2.85	0.10	0.11
Q1	3.20	3.40	0.13	0.13
ΦR	3.08	3.28	0.12	0.13



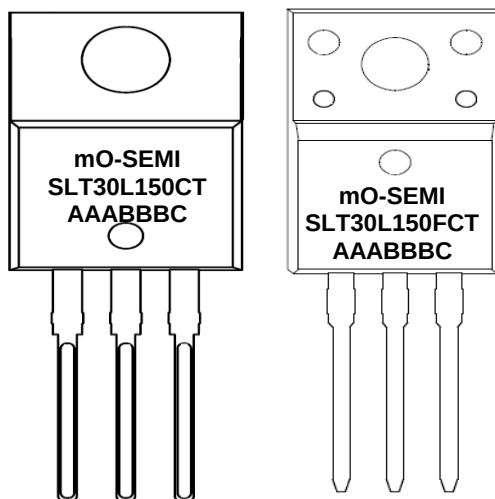
Top view shows dimensions E, ΦR, 3Xb2, 3Xb1, 2Xe, 3Xb. Side view shows dimensions A, F, A3, C, Q. Bottom view shows dimensions 3Xb2, 3Xb1, 3Xb. Labels include Mold Flash, Bleeding, and Exposed Cu.

TO-220				
SYMBOL	Dimensions			
	Millimeters		Inches	
	Min	Max	Min	Max
A	3.56	4.82	0.14	0.19
A1	0.51	1.39	0.02	0.05
A2	2.04	2.92	0.08	0.11
b	0.39	1.01	0.02	0.04
b1	1.15	1.82	0.05	0.07
b2	1.15	1.77	0.05	0.07
c	0.04	0.50	0.00	0.02
D	14.22	16.51	0.56	0.65
D1	8.39	9.01	0.33	0.35
D2	11.45	12.87	0.45	0.51
E	9.66	10.66	0.38	0.42
E1	6.86	8.89	0.27	0.35
e	2.54BSC		2.54BSC	
e1	5.08BSC		5.08BSC	
H1	5.85	6.85	0.23	0.27
L	12.70	14.73	0.50	0.58
L1	-	6.35	-	0.25
L2	15.80	16.20	0.62	0.64
ΦP	3.54	4.08	0.14	0.16
Q	2.54	3.42	0.10	0.13



Top view shows dimensions E, E/2, ΦP, 3Xb2, 3Xb1, 3Xb. Side view shows dimensions A, A1, H, A2, c. Bottom view shows dimensions 3Xb2, 3Xb1, 3Xb. Labels include Exposed Cu.

Marking Information



mO-SEMI
SLT30L150
AAABBBC
*FCT=ITO-220
*CT=TO-220

=Series Name
=Part Number Marking Code
=Product Tracking Code
=Dual ITO-220
=Dual TO-220