

Dual Common-Cathode Ultra Low VF Schottky Rectifier

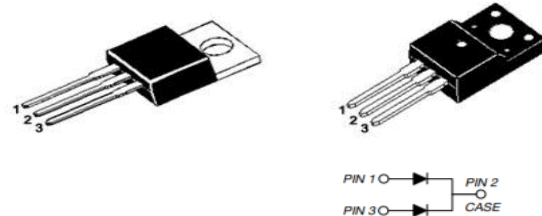
FEATURES AND BENEFITS

- 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}	60V
I_{FSM}	180A
V_F Typical= $2.5A, T_J=125^{\circ}C$	0.27V
T_{Jmax}	150 $^{\circ}C$



Maximum Ratings (Ta=25°C unless otherwise specified)						
Characteristics			Symbol	Value		Unit
Peak Repetitive Reverse Voltage			V _{RRM}	60		V
Working Peak Reverse Voltage			V _{RWM}	60		V
DC Blocking Voltage			V _{DC}	60		V
RMS Reverse Voltage			V _{RMS}	42		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=2.5A	Ta=25°C	V _F	0.39	0.43	V
	IF=15A	Ta=25°C	V _F	0.51	0.55	V
	IF=2.5A	Ta=125°C	V _F	0.27	0.31	V
	IF=15A	Ta=125°C	V _F	0.45	0.49	V
Reverse Current ⁽²⁾	VR=60V	Ta=25°C	I _R	25	75	μA
	VR=60V	Ta=125°C	I _R	7	20	mA

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

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

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

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

RATINGS AND CHARACTERISTICS CURVES

Fig 1. Typical Forward Characteristics

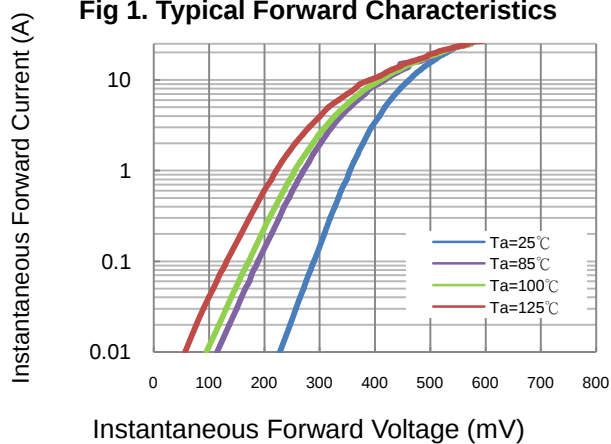


Fig 2. Typical Reverse Characteristics

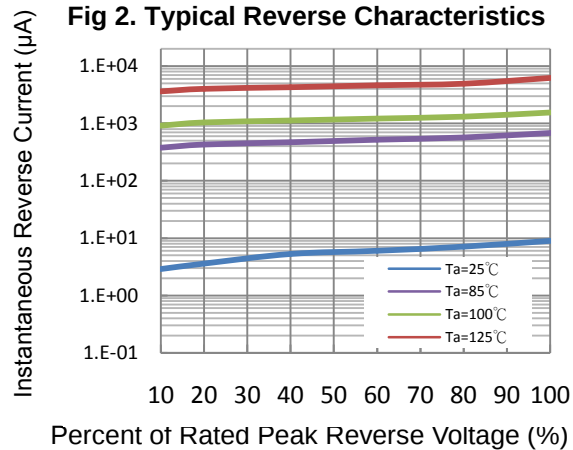


Fig 3. Typical Forward Current Derating Curve

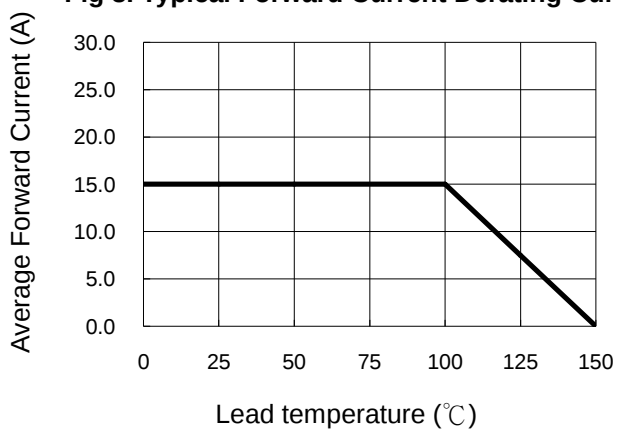
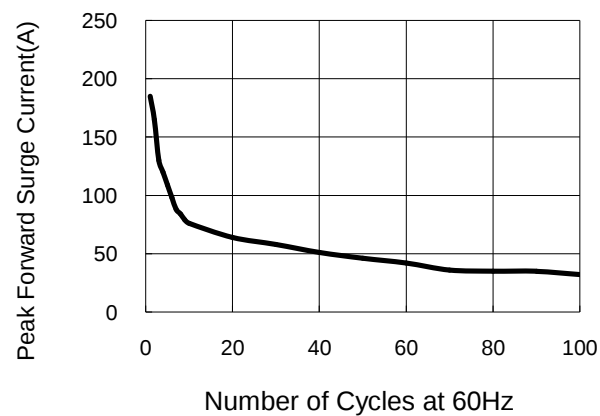
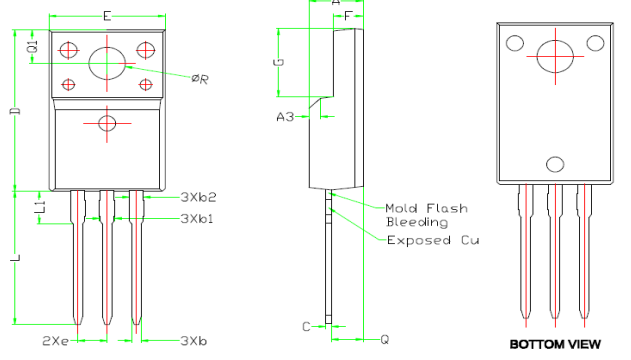


Fig 4. Non-repetitive Forward Surge Current



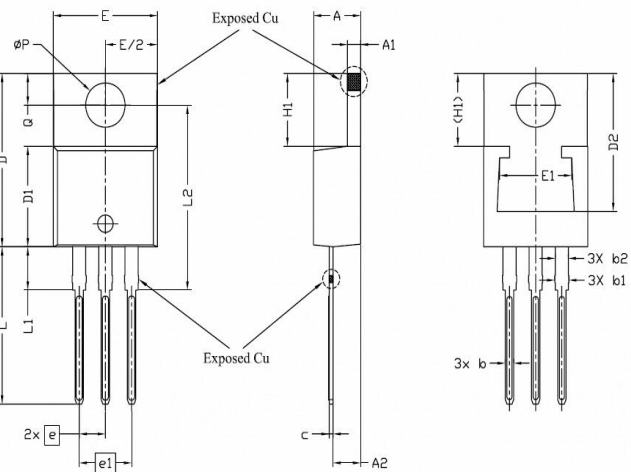
Package Outline Dimensions (in millimeters)

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	2.54			
E	10.00	10.10	0.39	0.40
F	2.44	2.54	0.10	0.10
G	6.50	6.70	0.26	0.26
L	12.90	13.10	0.51	0.52
L1	3.13	3.23	0.12	0.13
Q	2.65	2.75	0.10	0.11
Q1	3.20	3.30	0.13	0.13
Ψr	3.08	3.18	0.12	0.13



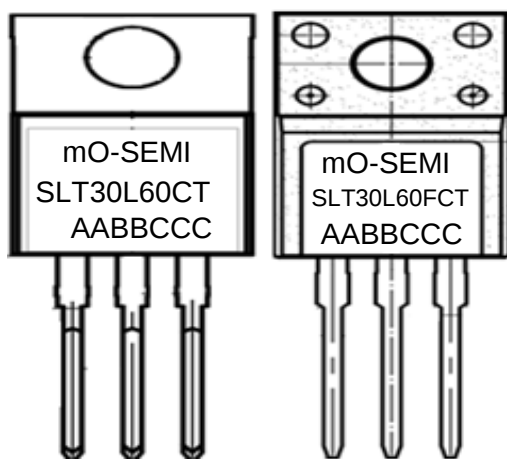
The diagram illustrates the ITO-220 package outline. The top view shows a rectangular body with a central circular feature and four mounting holes. Dimensions include E (width), D (height), and various lead dimensions (L1, L2, L). The side view shows the profile of the package with dimensions A, F, and C. The bottom view shows the underside of the package with dimensions Q and Q1. 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
ψP	3.54	4.08	0.14	0.16
Q	2.54	3.42	0.10	0.13



The diagram illustrates the TO-220 package outline. The top view shows a rectangular body with a central circular feature and four mounting holes. Dimensions include E, D, D1, D2, and various lead dimensions (L1, L2, L). The side view shows the profile of the package with dimensions A, A1, A2, and H1. The bottom view shows the underside of the package with dimensions Q and Q1. Labels include 'Exposed Cu'.

Marking Information



mO-SEMI =Series Name
 SLT30L60 =Part Number Marking Code
 AABBBBB =Product Tracking Code
 *FCT=ITO-220 =Dual ITO-220
 *CT=TO-220 =Dual TO-220