

Dual Common-Cathode Ultra Low VF Schottky Rectifier

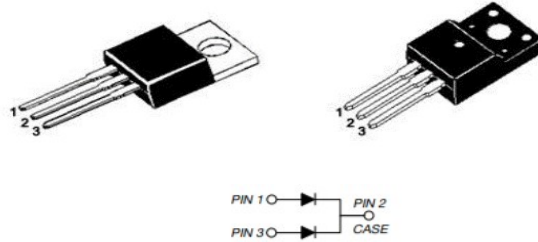
FEATURES AND BENEFITS

- 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	2X10A
V_{RRM}	200V
I_{FSM}	200A
V_F Typical= $0.75A, T_J=125^{\circ}C$	0.45V
T_{Jmax}	175°C



Maximum Ratings (Ta=25°C unless otherwise specified)						
Characteristics			Symbol	Value		Unit
Peak Repetitive Reverse Voltage			V _{RRM}	200		V
Working Peak Reverse Voltage			V _{RWM}	200		V
DC Blocking Voltage			V _{DC}	200		V
RMS Reverse Voltage			V _{RMS}	140		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}	200		Amps
Electrical Characteristics (Ta=25°C unless otherwise specified)						
Characteristics			Symbol	Typ.	Max.	Unit
Forward Voltage Drop ¹⁾	IF=0.75A	Ta=25°C	V _F	0.60	0.64	V
	IF=10A	Ta=25°C	V _F	0.85	0.89	V
	IF=0.75A	Ta=125°C	V _F	0.45	0.49	V
	IF=10A	Ta=125°C	V _F	0.70	0.74	V
Reverse Current ²⁾	VR=200V	Ta=25°C	I _R	5	15	µA
	VR=200V	Ta=125°C	I _R	3	10	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 +175	$^{\circ}C$
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

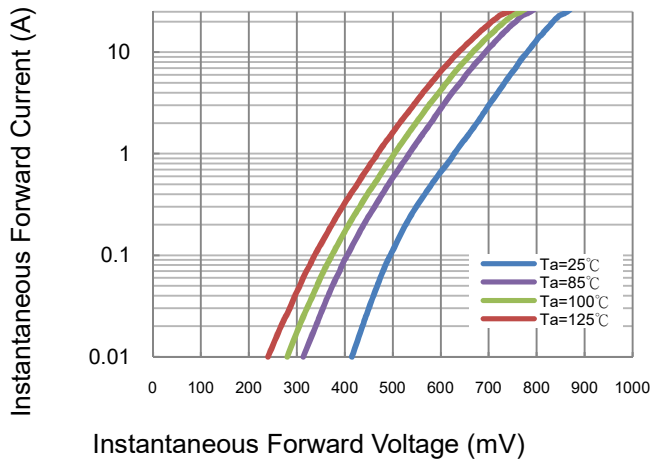


Fig 2. Typical Reverse Characteristics

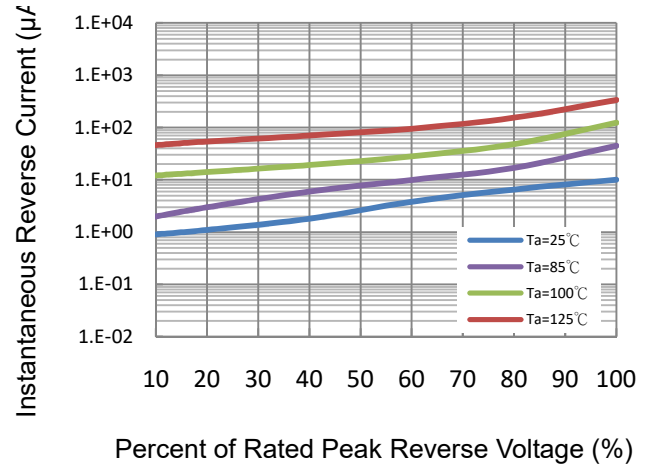


Fig 3. Typical Forward Current Derating Curve

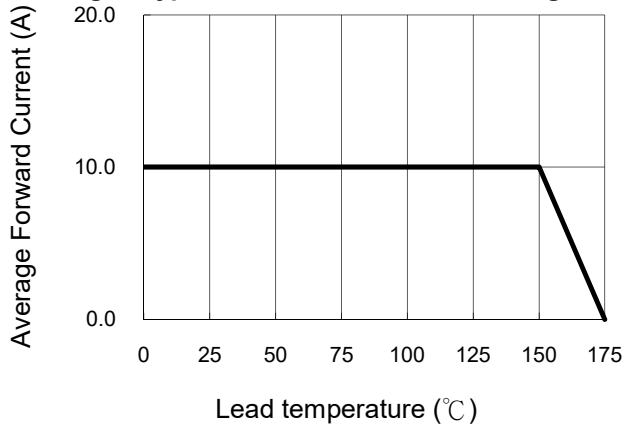
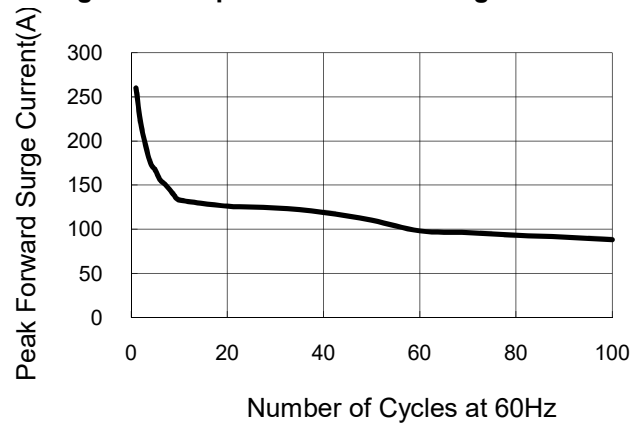
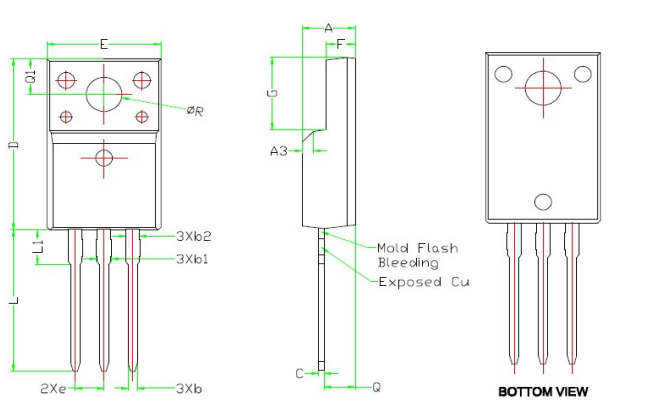


Fig 4. Non-repetitive Forward Surge Current



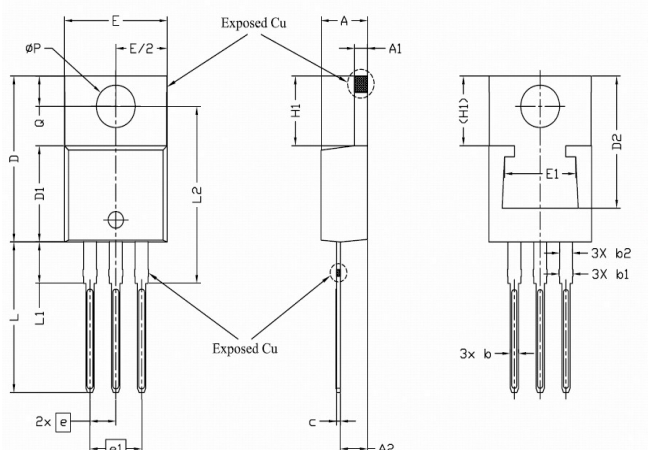
Package Outline Dimensions (in millimeters)

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



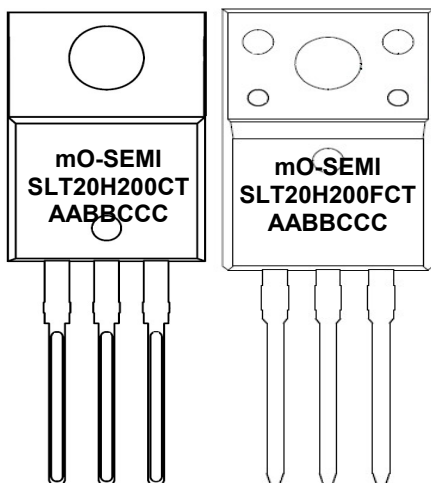
The diagrams show the ITO-220 package from three perspectives: top, side, and bottom. The top view shows a rectangular body with three circular mounting holes and three leads. Dimensions include A (height), b (lead width), b1 and b2 (lead spacing), C (lead thickness), D (body width), e (lead pitch), E (body length), F (lead length), G (lead height), L (total length), L1 (lead length), Q (lead width), Q1 (lead width), and Ψr (lead width). The side view shows the profile of the package with dimensions A, F, G, A3, C, and Q. The bottom view shows the underside of the package with dimensions 2Xe, 3Xb1, 3Xb2, and 3Xb.

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 diagrams show the TO-220 package from three perspectives: top, side, and bottom. The top view shows a rectangular body with three circular mounting holes and three leads. Dimensions include A (height), A1 (lead width), A2 (lead width), b (lead width), b1 and b2 (lead spacing), c (lead thickness), D (body width), D1 (lead width), D2 (lead width), E (body length), E1 (lead length), e (lead pitch), e1 (lead pitch), H1 (lead height), L (total length), L1 (lead length), L2 (lead length), ψP (lead width), and Q (lead width). The side view shows the profile of the package with dimensions A, A1, A2, H1, c, and Q. The bottom view shows the underside of the package with dimensions 2x e, e1, 3x b1, 3x b2, and 3x b.

Marking Information



mO-SEMI =Series Name
 SLT20H200 =Part Number Marking Code
 AABCCCC =Product Tracking Code
 *FCT=ITO-220 =Dual ITO-220
 *CT=TO-220 =Dual TO-220