

Dual Common-Cathode Ultra Low VF Schottky Rectifier

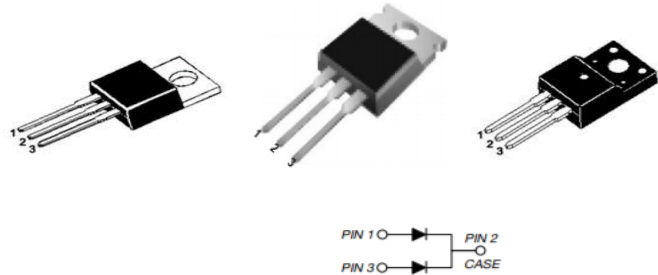
FEATURES AND BENEFITS

- 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}	90V
I_{FSM}	200A
V_F Typical=3A , $T_J=125^{\circ}C$	0.32V
T_{Jmax}	150°C



Maximum Ratings ($T_a=25^{\circ}C$ unless otherwise specified)				
Characteristics	Symbol	Value		Unit
		Min.	Typ.	
Peak Repetitive Reverse Voltage	V_{RRM}	90	95	V
Working Peak Reverse Voltage	V_{RWM}	90	95	V
DC Blocking Voltage	V_{DC}	90	95	V
RMS Reverse Voltage	V_{RMS}	63		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}	200		Amps

Electrical Characteristics ($T_a=25^{\circ}C$ unless otherwise specified)						
Characteristics			Symbol	Typ.	Max.	Unit
Forward Voltage Drop ¹⁾	IF=3A	$T_a=25^{\circ}C$	V_F	0.42	0.46	V
	IF=15A	$T_a=25^{\circ}C$	V_F	0.61	0.65	V
	IF=3A	$T_a=125^{\circ}C$	V_F	0.32	0.36	V
	IF=15A	$T_a=125^{\circ}C$	V_F	0.54	0.58	V
Reverse Current ²⁾	VR=80V	$T_a=25^{\circ}C$	I_R	15	45	μA
	VR=80V	$T_a=125^{\circ}C$	I_R	10	30	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

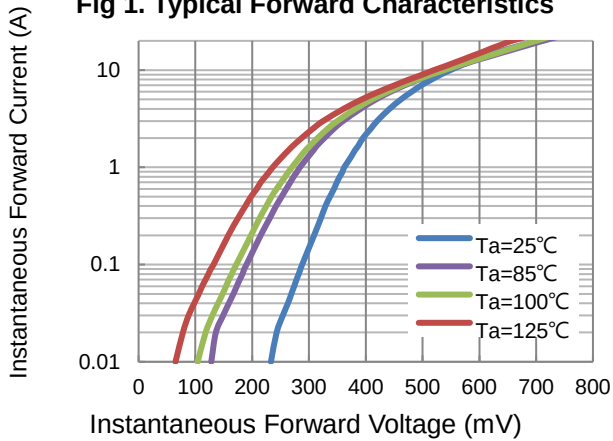


Fig 2. Typical Reverse Characteristics

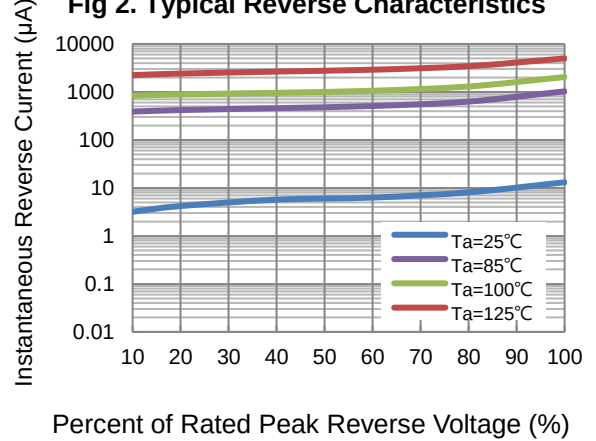


Fig 3. Typical Forward Current Derating Curve

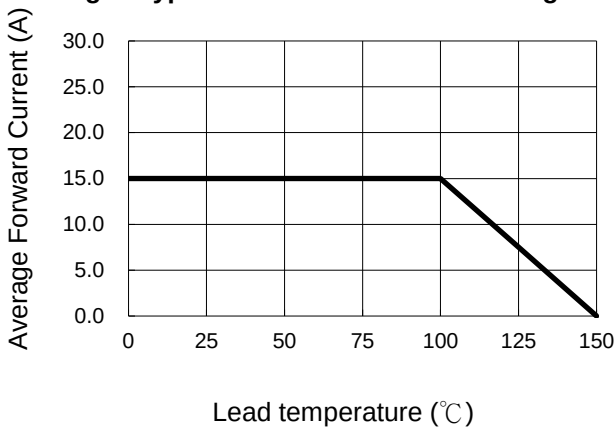
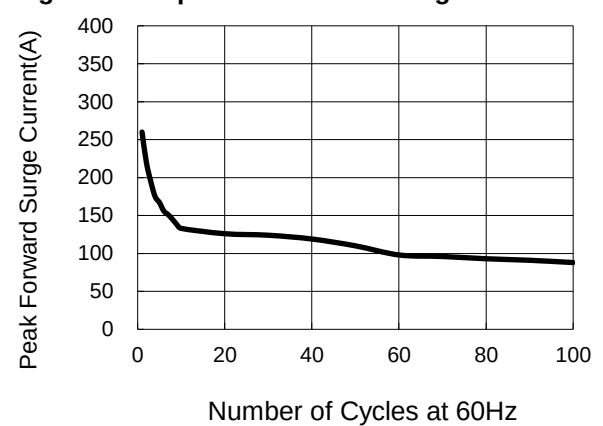


Fig 4. Non-repetitive Forward Surge Current



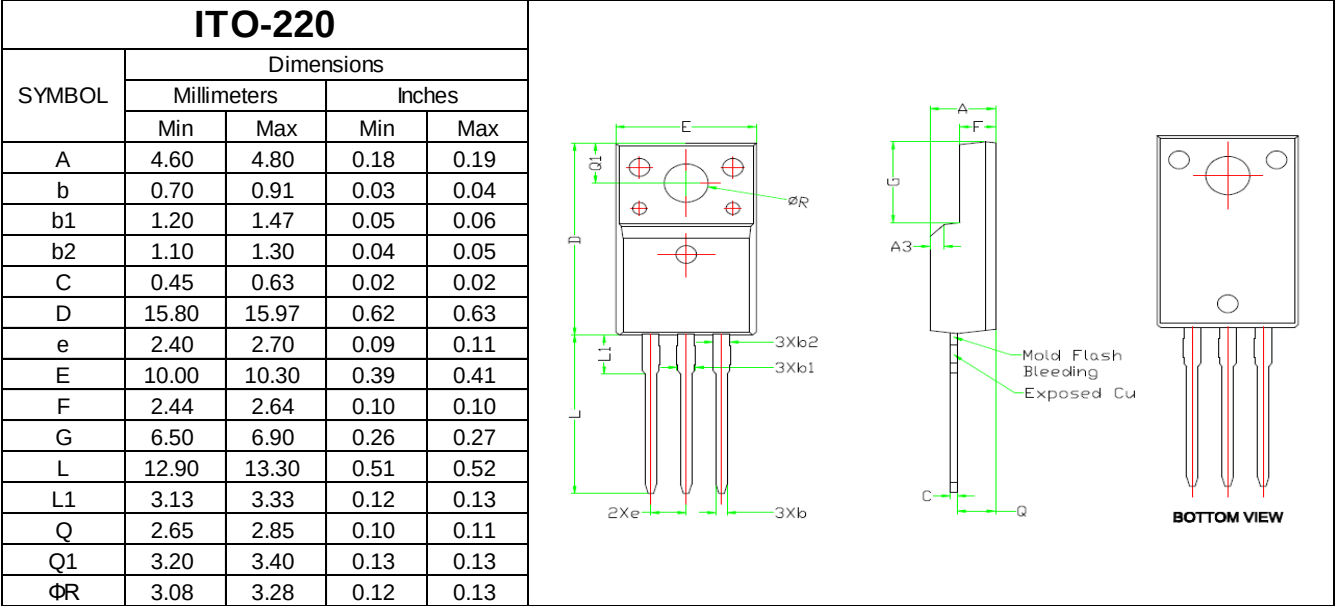
Marking Information

mO-SEMI
SLT30L80CT
AAABBBC

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SLT30L80FCT
AAABBBC

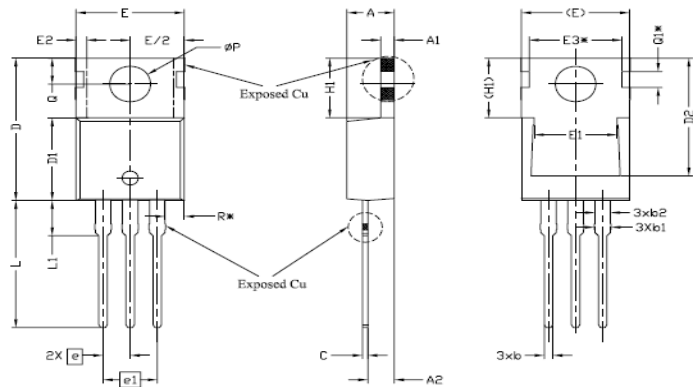
mO-SEMI	=Series Name
SLT30L80	=Part Number Marking Code
AAABBBC	=Product Tracking Code
*FCT=ITO-220	=Dual ITO-220
*CT=TO-220	=Dual TO-220

Package Outline Dimensions (in millimeters)



TO-220 (Type 1)

TO-220				
SYMBOL	Dimensions			
	Millimeters		Inches	
	Min	Max	Min	Max
A	4.24	4.64	0.17	0.18
A1	1.15	1.40	0.05	0.06
A2	2.30	2.70	0.09	0.11
b	0.70	0.90	0.03	0.04
b1	1.20	1.75	0.05	0.07
b2	1.20	1.70	0.05	0.07
c	0.40	0.60	0.02	0.02
D	14.70	16.00	0.58	0.63
D1	8.82	9.02	0.35	0.36
D2	12.43	12.83	0.49	0.51
E	9.96	10.36	0.39	0.41
E1	6.86	8.89	0.27	0.35
E2	-	0.76	-	0.03
E3*	8.7REF.			
e	2.54BSC			
e1	5.08BSC			
H1	6.30	6.60	0.25	0.26
L	13.47	13.97	0.53	0.55
L1	3.60	4.00	0.14	0.16
ΦP	3.75	3.93	0.15	0.15
Q	2.60	3.00	0.10	0.12
Q1*	1.73REF.			
R*	1.82REF.			



TO-220 (Type 2)

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

