SLT20H120CT
SLT20H120FCT

V1.1 Datasheet

Dual Common-Cathode Ultra Low VF Schottky Rectifier

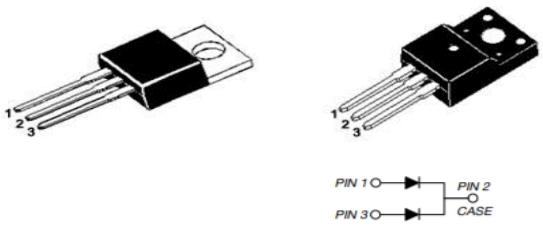
FEATURES AND BENEFITS

- 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}	120V
I_{FSM}	170A
V_F Typical=1A,T_J=125°C	0.37V
T_{Jmax}	175°C



Maximum Ratings (Ta=25°C unless otherwise specified)			
Characteristics	**Symbol**	**Value**	**Unit**
Peak Repetitive Reverse Voltage	V_{RRM}	120	V
Working Peak Reverse Voltage	V_{RWM}	120	V
DC Blocking Voltage	V_{DC}	120	V
RMS Reverse Voltage	V_{RMS}	84	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}	170	Amps

Electrical Characteristics (Ta=25°C unless otherwise specified)						
Characteristics			**Symbol**	**Typ.**	**Max.**	**Unit**
Forward Voltage Drop	IF=1A	Ta=25°C	V_F	0.47	0.51	V
	IF=10A	Ta=25°C	V_F	0.76	0.80	V
	IF=1A	Ta=125°C	V_F	0.37	0.41	V
	IF=10A	Ta=125°C	V_F	0.62	0.66	V
Reverse Current	VR=120V	Ta=25°C	I_R	5	15	μA
	VR=120V	Ta=125°C	I_R	1	3	mA

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

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

Notes (2): Pulse width ≦40ms

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

RATINGS AND CHARACTERISTICS CURVES

Fig 1. Typical Forward Characteristics

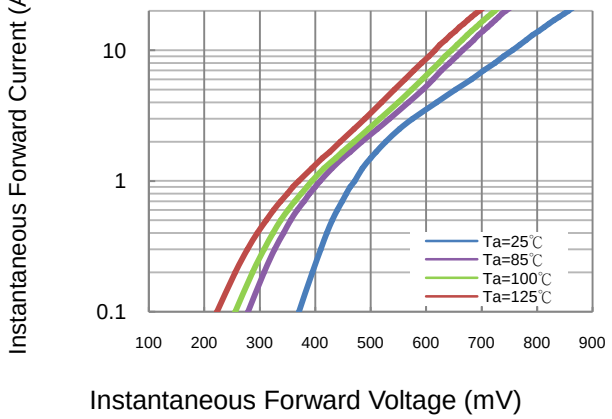


Fig 2. Typical Reverse Characteristics

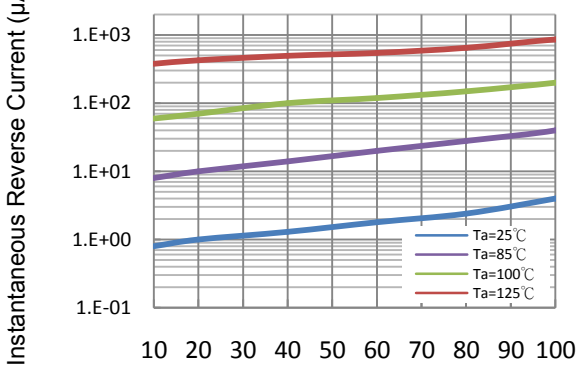


Fig 3. Typical Forward Current Derating Curve

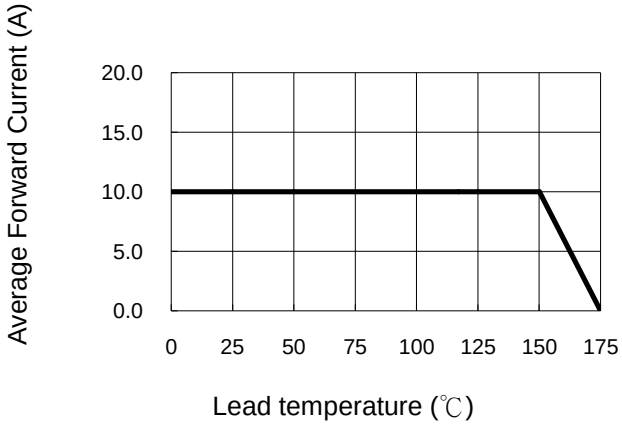
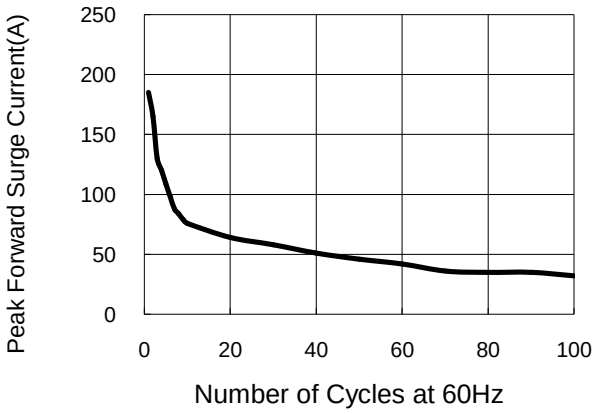


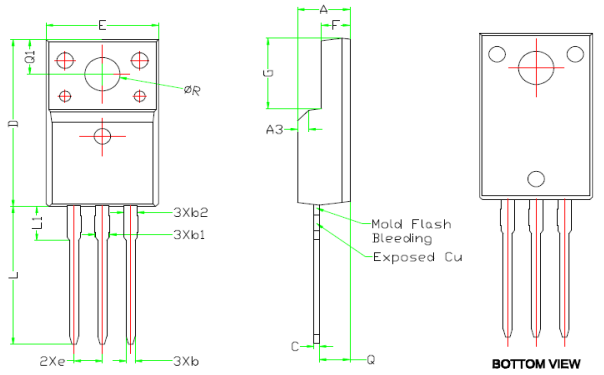
Fig 4. Non-repetitive Forward Surge Current



Package Outline Dimensions (in millimeters)

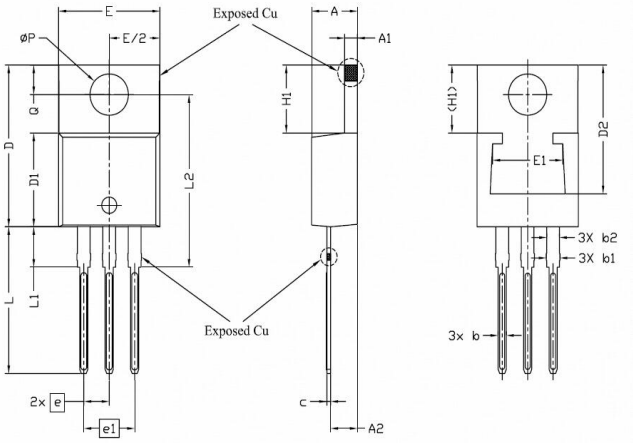
ITO-220

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

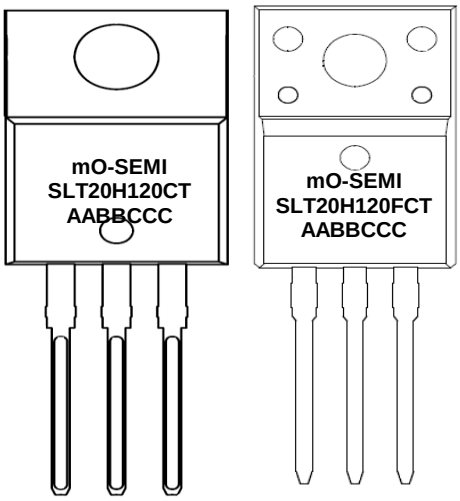


TO-220

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



Marking Information



mO-SEMI	=Series Name
SLT20H120	=Part Number Marking Code
AABBCCC	=Product Tracking Code
*FCT=ITO-220	=Dual ITO-220
*CT=TO-220	=Dual TO-220