

Dual Common-Cathode Ultra Low VF Schottky Rectifier

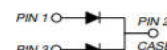
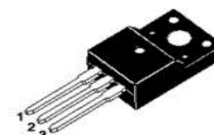
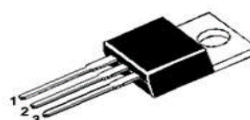
FEATURES AND BENEFITS

- 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	15A x 2
V_{RRM}	100V
I_{FSM}	180A
$VF@ 3A, T_J=125^{\circ}C$	0.39V
T_{Jmax}	125 $^{\circ}C$



Maximum Ratings ($T_a=25^{\circ}C$ unless otherwise specified)			
Characteristics	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
Working Peak Reverse Voltage	V_{RWM}	100	V
DC Blocking Voltage	V_{DC}	100	V
RMS Reverse Voltage	V_{RMS}	70	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 ($T_a=25^{\circ}C$ unless otherwise specified)						
Characteristics			Symbol	Typ.	Max.	Unit
Forward Voltage Drop	$I_F=5A$	$T_a=25^{\circ}C$	V_F	0.50	0.54	V
	$I_F=15A$	$T_a=25^{\circ}C$	V_F	0.69	0.73	V
	$I_F=5A$	$T_a=125^{\circ}C$	V_F	0.46	0.50	V
	$I_F=15A$	$T_a=125^{\circ}C$	V_F	0.61	0.65	V
Reverse Current	$V_R=100V$	$T_a=25^{\circ}C$	I_R	15	50	μA
	$V_R=100V$	$T_a=125^{\circ}C$	I_R	6	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

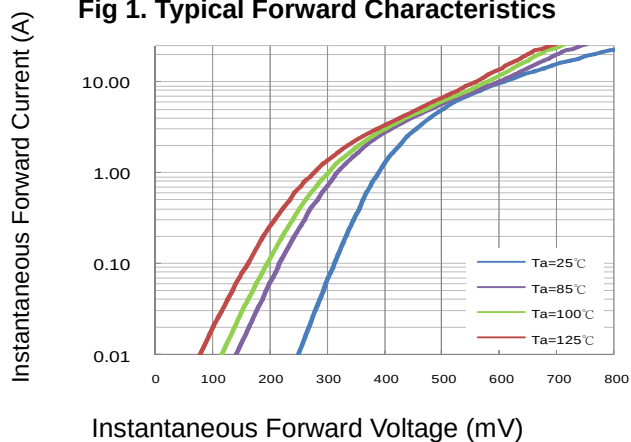


Fig 2. Typical Reverse Characteristics

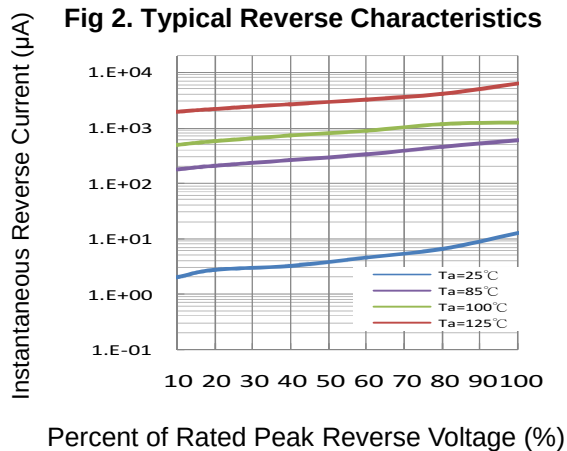


Fig 3. Typical Forward Current Derating Curve

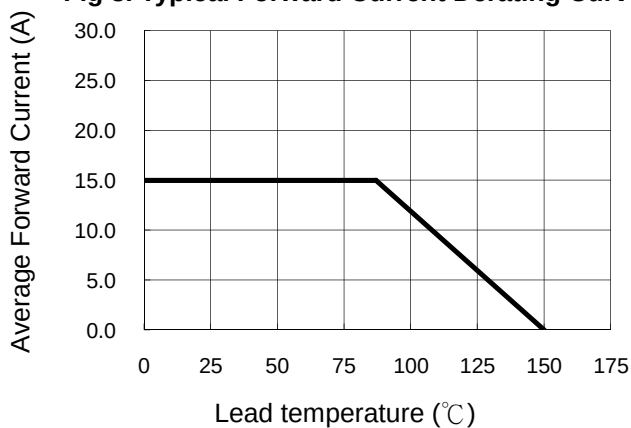
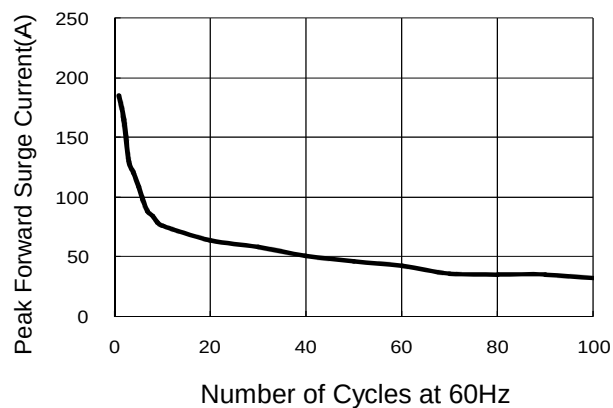


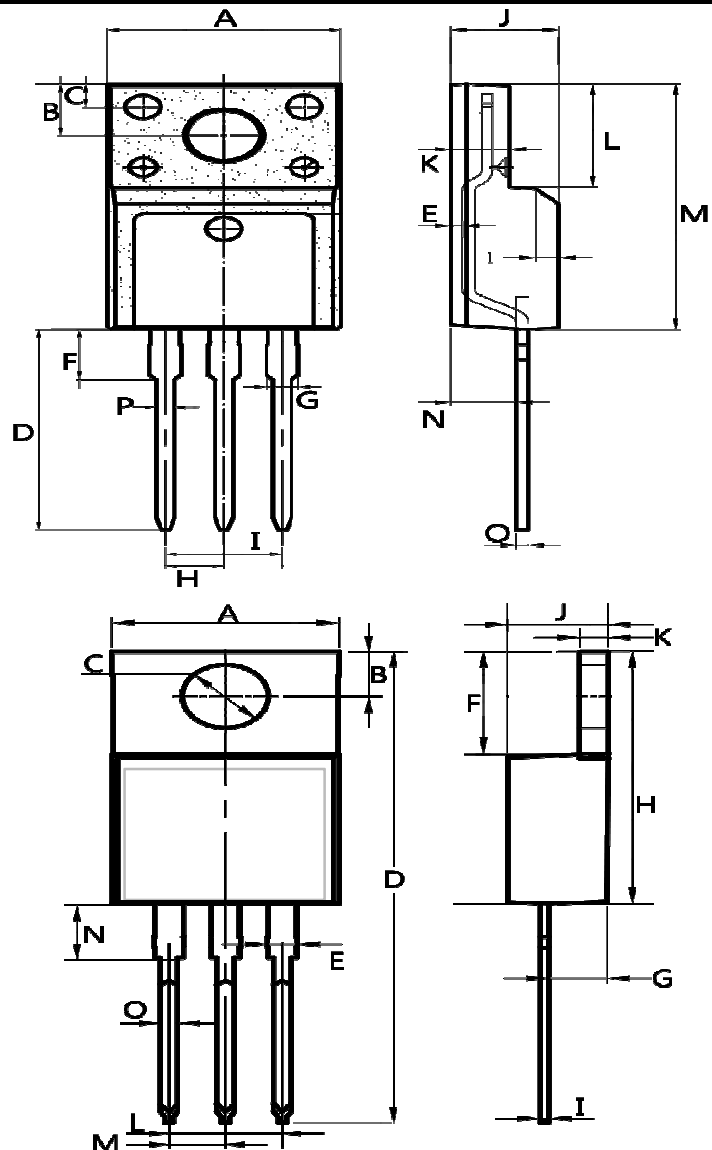
Fig 4. Non-repetitive Forward Surge Current



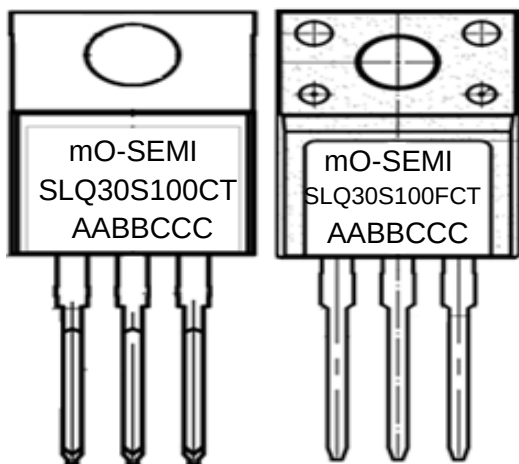
Package Outline Dimensions (in millimeters)

SYMBOL	Dimensions			
	Millimeters		Inches	
	Min	Max	Min	Max
A	9.90	10.30	0.39	0.41
B	2.90	3.50	0.11	0.14
C	1.15	1.45	0.05	0.06
D	12.75	13.25	0.50	0.52
E	0.55	0.75	0.02	0.03
F	3.10	3.50	0.12	0.14
G	1.25	1.45	0.05	0.06
H	—	2.54	—	0.10
I	—	5.08	—	0.20
J	4.55	4.75	0.18	0.19
K	2.40	2.70	0.09	0.11
L	6.35	6.75	0.25	0.27
M	15.00	16.00	0.59	0.63
N	2.75	3.15	0.11	0.12
O	0.45	0.60	0.02	0.02
P	0.70	0.90	0.03	0.04

SYMBOL	Dimensions			
	Millimeters		Inches	
	Min	Max	Min	Max
A	10.00	10.40	0.39	0.41
B	2.50	3.00	0.10	0.12
C	3.50	4.00	0.14	0.16
D	28.00	30.00	1.10	1.18
E	1.10	1.50	0.04	0.06
F	6.20	6.60	0.24	0.26
G	2.90	3.30	0.11	0.13
H	15.00	16.00	0.59	0.63
I	0.35	0.45	0.01	0.02
J	4.30	4.70	0.17	0.19
K	1.20	1.40	0.05	0.06
L	—	5.08	—	0.20
M	—	2.54	—	0.10
N	3.10	3.50	0.12	0.14
O	0.70	0.90	0.03	0.04
P	10.00	10.40	0.39	0.41



Marking Information



SLQ = Product Type Marking Code
 30Q100CT/FCT = Part Number Marking Code
 AABBBCCC = Product Tracking Code
 *FCT=ITO-220
 *CT=TO-220