

Single Ultra Low VF Schottky Rectifier

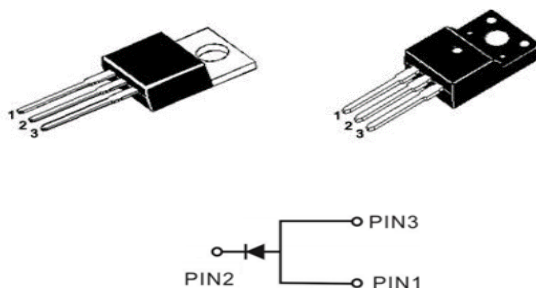
FEATURES AND BENEFITS

- 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	10A
V_{RRM}	100V
I_{FSM}	170A
$V_F@ 5A, T_J=125^{\circ}C$	0.52V
T_{Jmax}	150°C



Maximum Ratings (Ta=25°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	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=5A	Ta=25°C	V _F	0.58	0.62	V
	IF=10A	Ta=25°C	V _F	0.69	0.73	V
	IF=5A	Ta=125°C	V _F	0.52	0.56	V
	IF=10A	Ta=125°C	V _F	0.61	0.65	V
Reverse Current	VR=100V	Ta=25°C	I _R	10	50	μA
	VR=100V	Ta=125°C	I _R	6	30	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 +150	°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

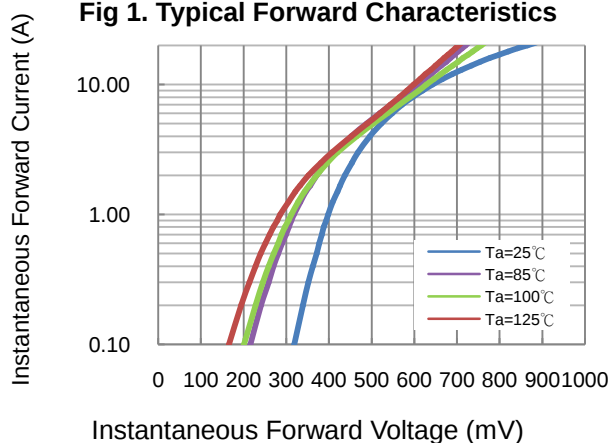


Fig 2. Typical Reverse Characteristics

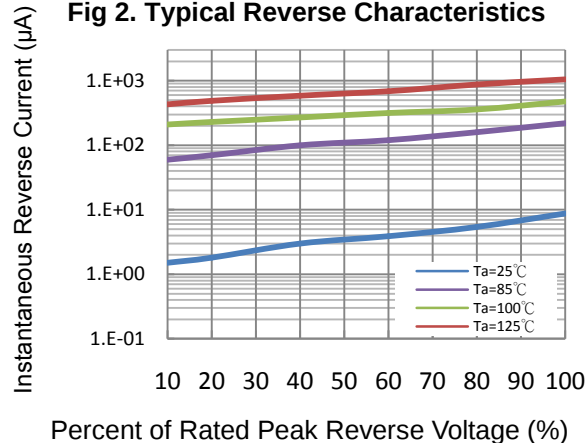


Fig 3. Typical Forward Current Derating Curve

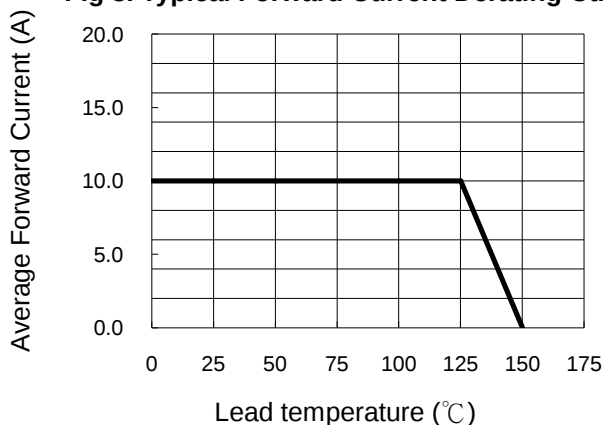
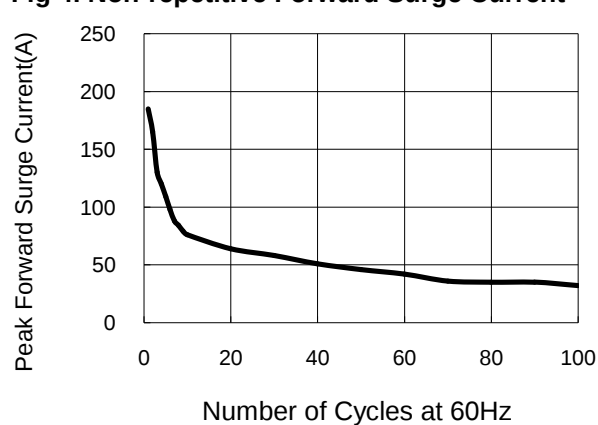
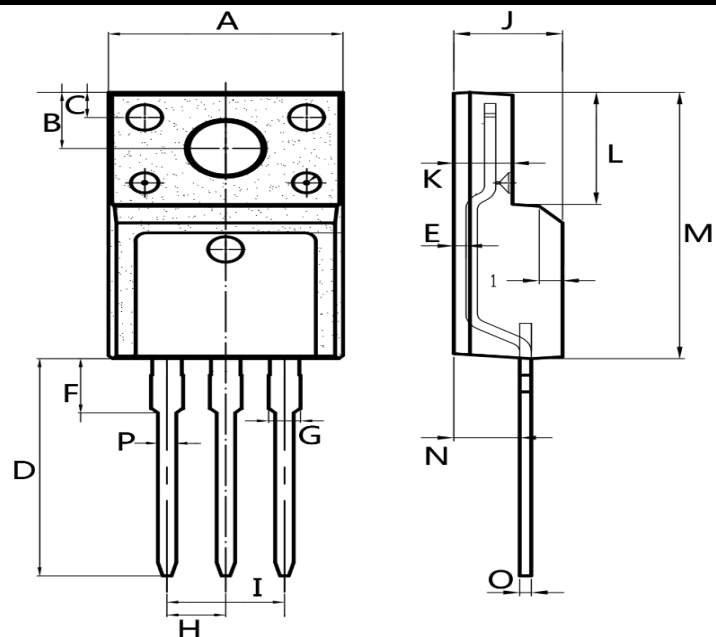


Fig 4. Non-repetitive Forward Surge Current

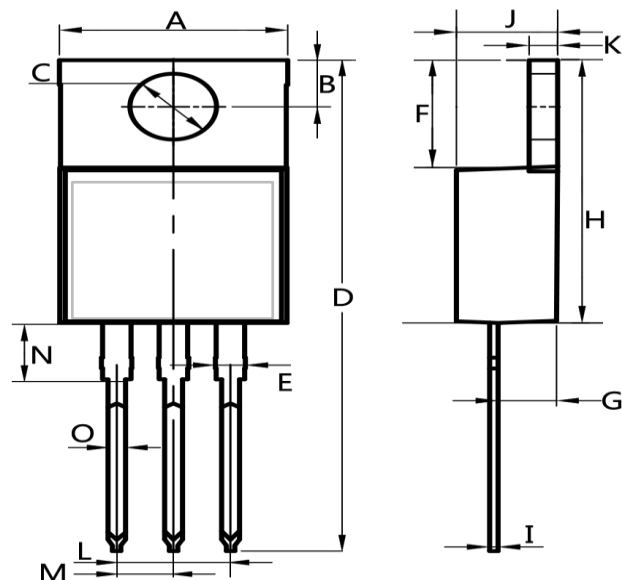


Package Outline Dimensions (in millimeters)

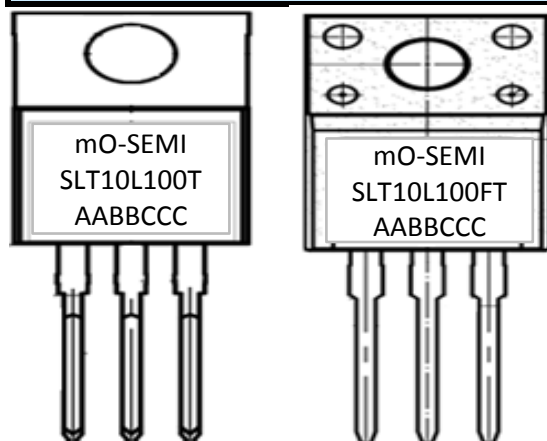
SYMBOL	Dimensions			
	Millimeters		Inches	
	Min	Max	Min	Max
A	9.90	10.30	0.39	0.41
B	2.90	3.50	0.11	0.14
C	1.15	1.45	0.05	0.06
D	12.75	13.25	0.50	0.52
E	0.55	0.75	0.02	0.03
F	3.10	3.50	0.12	0.14
G	1.25	1.45	0.05	0.06
H	—	2.54	—	0.10
I	—	5.08	—	0.20
J	4.55	4.75	0.18	0.19
K	2.40	2.70	0.09	0.11
L	6.35	6.75	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



SLT
10L100T
10L100FT
AABBBCC
*FT=ITO-220
*T=TO-220

= Product Type Marking Code
= Part Number Marking Code
= Part Number Marking Code
= Product Tracking Code
=Single ITO-220
=Single TO-220