

Surface Mount Schottky Barrier Rectifier Voltage 60V Current 20 Amperes

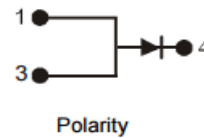
FEATURES AND BENEFITS

- 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-252 Package
- Terminals: Matte Tin annealed over copper
- Weight: Approximated 1.4 grams

Primary Characteristic	
I_O	20A
V_{RRM}	60V
I_{FSM}	170A
V_F Typical=5A, $T_J=125^\circ\text{C}$	0.4V
T_{Jmax}	150°C



Maximum Ratings (TA=25°C unless otherwise specified)						
Characteristics			Symbol	Value		Unit
Peak Repetitive Reverse Voltage			V _{RRM}	60		V
Working Peak Reverse Voltage			V _{RWM}	60		V
DC Blocking Voltage			V _{DC}	60		V
RMS Reverse Voltage			V _{RMS}	42		V
Average Forward Rectified Current (per diode)			I _O	20		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 ¹⁾	IF=5A	Ta=25°C	V _F	0.43	0.47	V
	IF=20A	Ta=25°C	V _F	0.66	0.70	V
	IF=5A	Ta=125°C	V _F	0.40	0.44	V
	IF=20A	Ta=125°C	V _F	0.59	0.63	V
Reverse Current ²⁾	VR=60V	Ta=25°C	I _R	20	60	μA
	VR=60V	Ta=125°C	I _R	5	15	mA

THERMAL CHARACTERISTICS (TA=25 °C unless otherwise noted)			
Characteristics	Symbol	Value	Unit
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

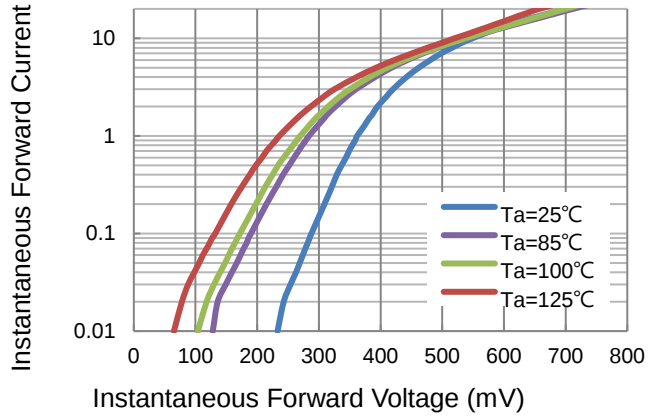


Fig 2. Typical Reverse Characteristics

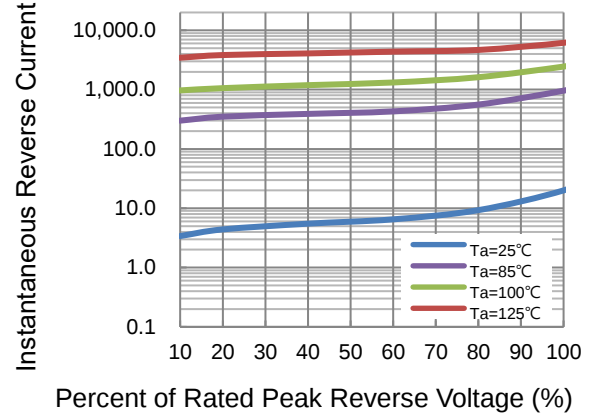


Fig 3. Typical Forward Current Derating Curve

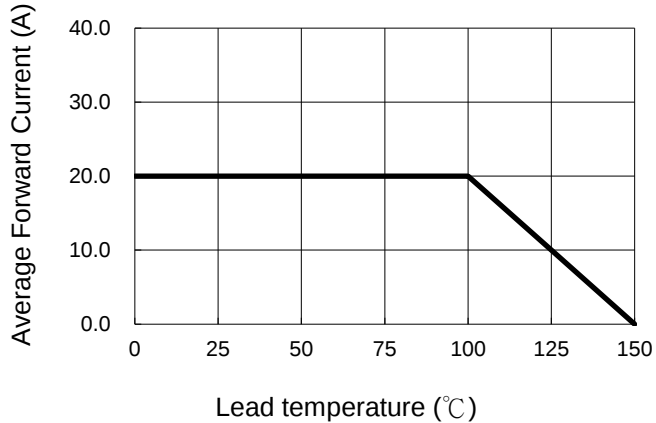
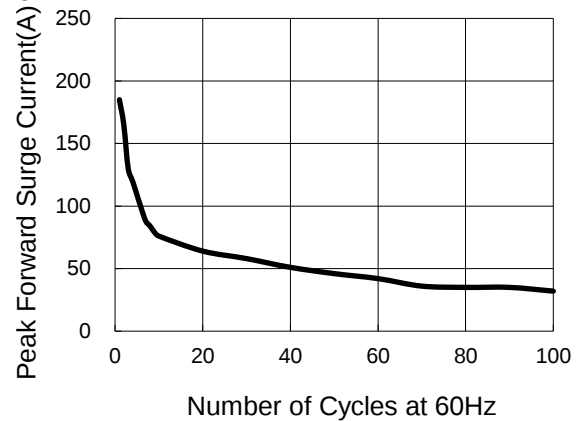
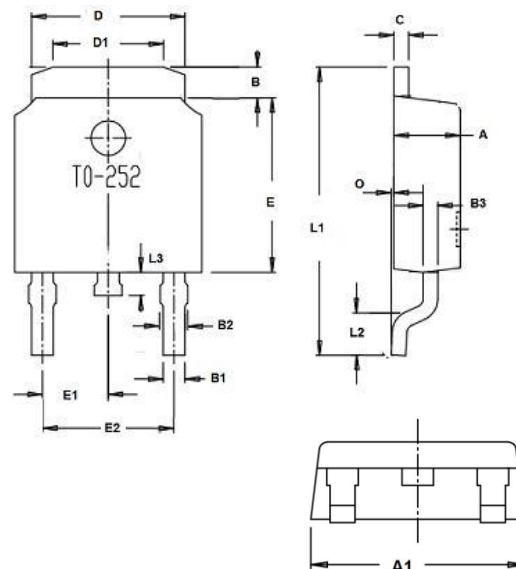
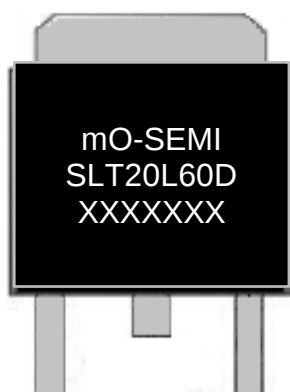


Fig 4. Non-repetitive Forward Surge Current



Package Outline Dimensions (in millimeters)

TO-252				
SYMBOL	Dimensions			
	Millimeters		Inches	
	Min	Max	Min	Max
A	2.10	2.50	0.083	0.098
A1	6.30	6.90	0.248	0.272
B	0.96	1.42	0.038	0.056
B1	0.64	0.88	0.025	0.035
B2	0.74	1.14	0.029	0.045
C	0.46	0.58	0.018	0.023
D	5.20	5.53	0.205	0.218
D1	3.65	4.05	0.144	0.159
E	6.00	6.20	0.236	0.244
E1	2.29 BSC			
E2	4.60 BSC			
O	0.00	0.13	0.000	0.005
L1	9.40	10.50	0.370	0.413
L2	1.40	1.77	0.055	0.070
L3	0.60	1.01	0.024	0.040


Marking Information


mO-SEMI
 SLT20L60
 XXXXXXX
 D=TO-252

=Series Name
 =Part Number Marking Code
 =Product Tracking Code
 =Single TO-252