

Surface Mount Schottky Barrier Rectifier Voltage 100V Current 10 Amperes

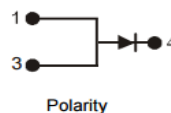
FEATURES AND BENEFITS

- 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	10A
V_{RRM}	100V
I_{FSM}	170A
V_F Typical=3A, $T_J=125^\circ\text{C}$	0.42V
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 ⁽¹⁾	IF=3A	Ta=25°C	V _F	0.51	0.55	V
	IF=10A	Ta=25°C	V _F	0.65	0.69	V
	IF=3A	Ta=125°C	V _F	0.42	0.46	V
	IF=10A	Ta=125°C	V _F	0.55	0.59	V
Reverse Current ⁽²⁾	VR=100V	Ta=25°C	I _R	0.5	2	μA
	VR=100V	Ta=125°C	I _R	1.5	5	mA

THERMAL CHARACTERISTICS (TA=25°C unless otherwise noted)			
Characteristics		Symbol	Value
Operating Temperature Range (in DC Mode)		T_J	-65 to +150
Storage Temperature Range		T_{STG}	-65 to +150

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

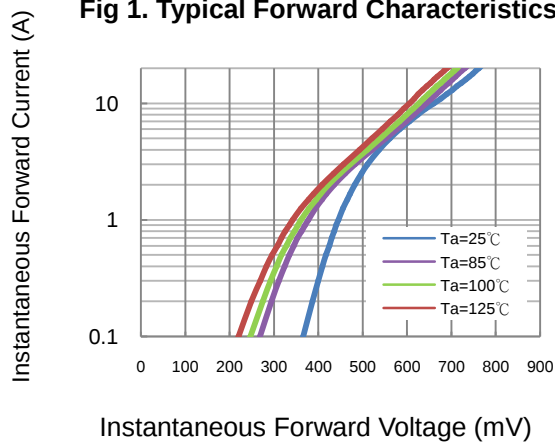


Fig 2. Typical Reverse Characteristics

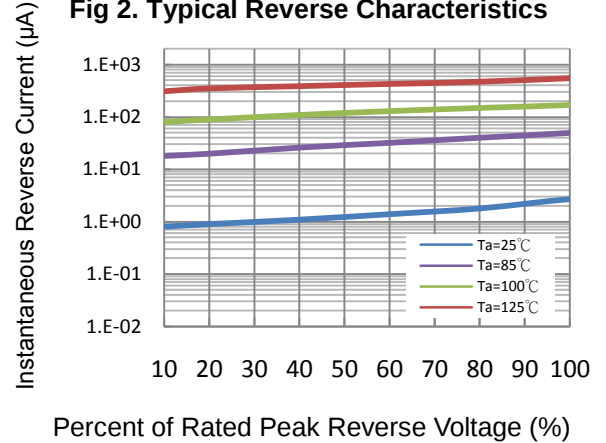


Fig 3. Typical Forward Current Derating Curve

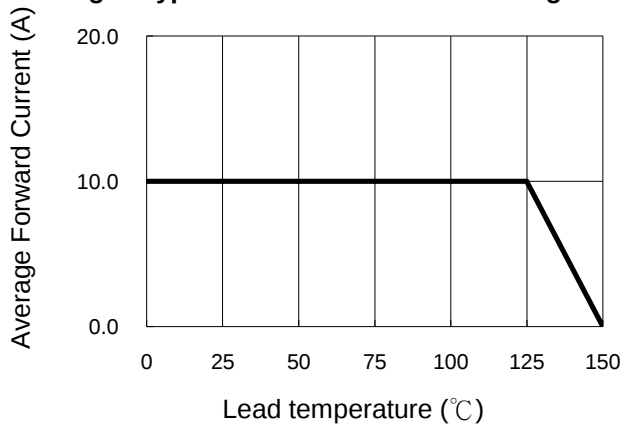
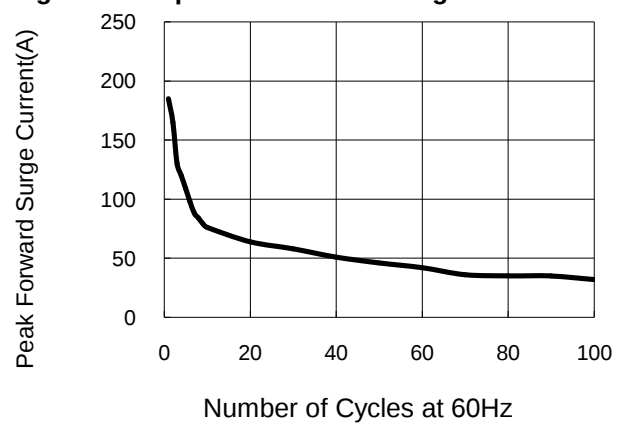
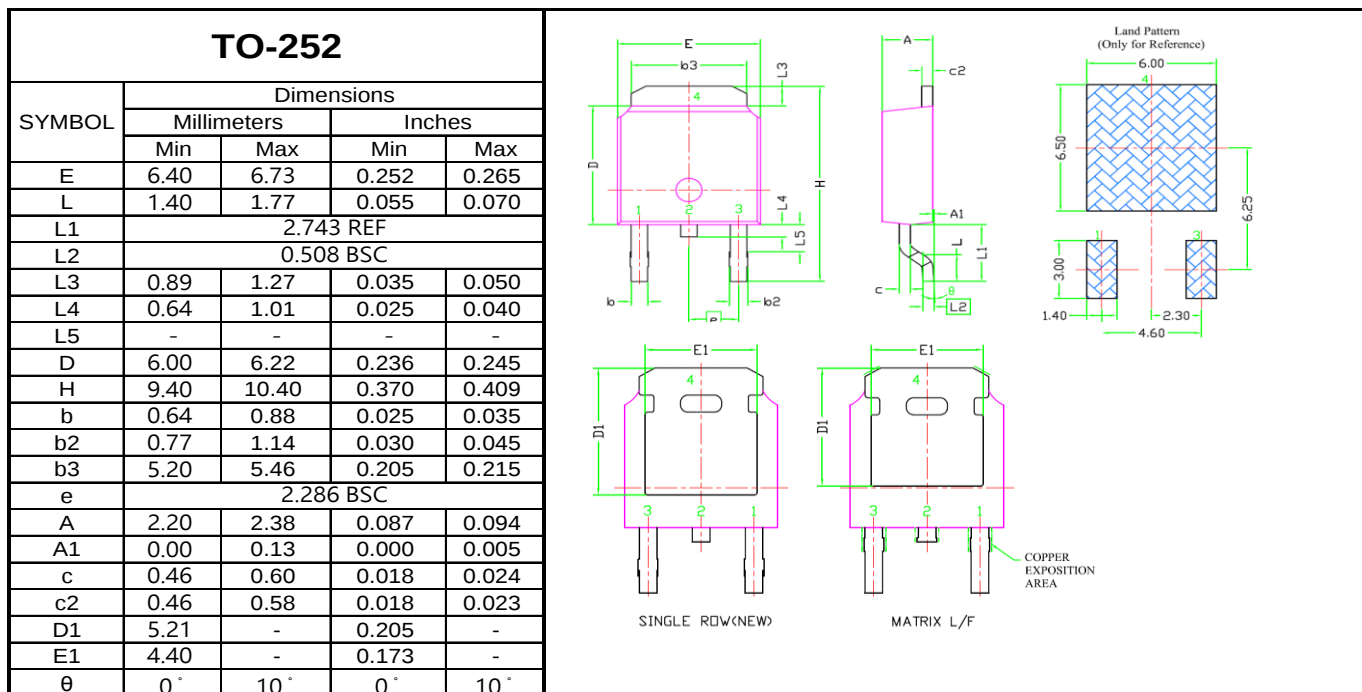


Fig 4. Non-repetitive Forward Surge Current



Package Outline Dimensions (in millimeters)



Marking Information



mO-SEMI
SAT10H100
XXXXXXX
D=TO-252

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