

Surface Mount Schottky Barrier Rectifier Voltage 100V Current 10 Amperes

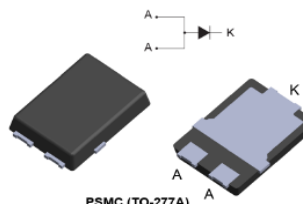
FEATURES AND BENEFITS

- 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-277A Package
- Terminals: Matte Tin annealed over copper
- Weight: Approximated 0.093 grams

Primary Characteristic	
I_O	10A
V_{RRM}	100V
I_{FSM}	200A
V_F Typical= 2A, $T_J=125^\circ\text{C}$	0.40V
T_{Jmax}	185°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}	200		Amps
Electrical Characteristics (Ta=25°C unless otherwise specified)						
Characteristics			Symbol	Typ.	Max.	Unit
Forward Voltage Drop ⁽¹⁾	IF=2A	Ta=25°C	V _F	0.52	0.56	V
	IF=10A	Ta=25°C	V _F	0.69	0.73	V
	IF=2A	Ta=125°C	V _F	0.40	0.44	V
	IF=10A	Ta=125°C	V _F	0.56	0.60	V
Reverse Current ⁽²⁾	VR=100V	Ta=25°C	I _R	0.35	1.00	uA
	VR=100V	Ta=125°C	I _R	0.20	0.50	mA

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

Notes (2): Pulse width $\leq 40\text{ms}$

THERMAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)			
Characteristics	Symbol	Value	Unit
Operating Temperature Range (in DC Mode)	T_J	-65 to +185	°C
Storage Temperature Range	T_{STG}	-65 to +150	°C

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

RATINGS AND CHARACTERISTICS CURVES

Fig 1. Typical Forward Characteristics

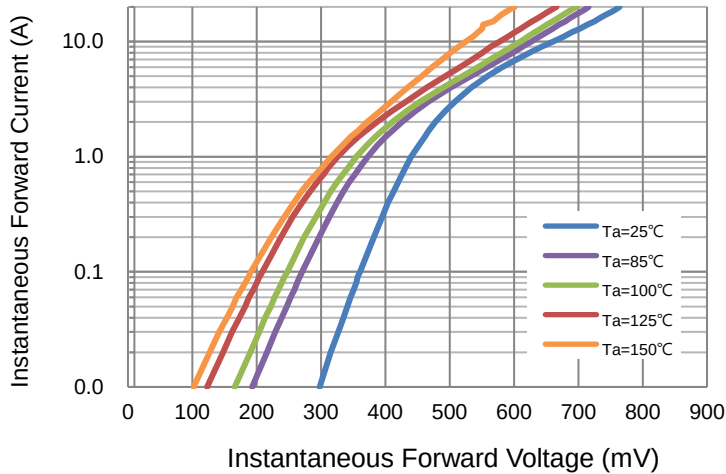


Fig 2. Typical Reverse Characteristics

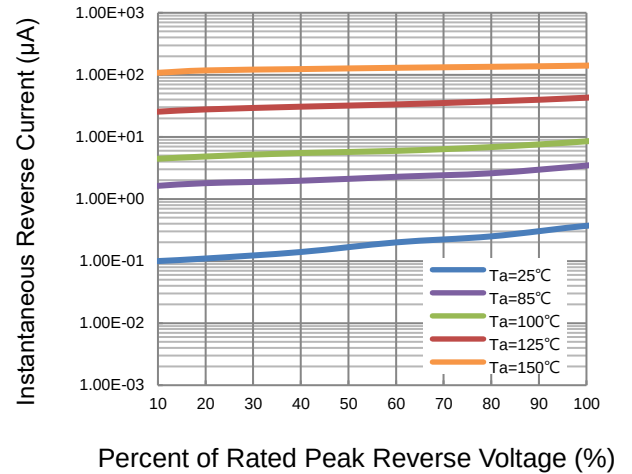


Fig 3. Typical Forward Current Derating Curve

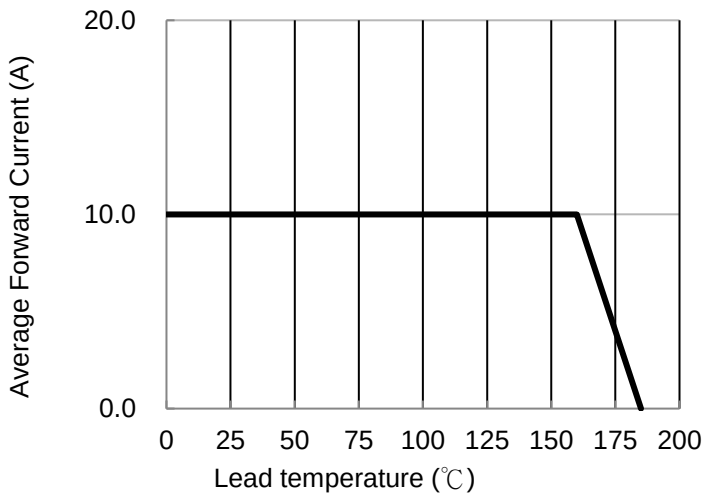
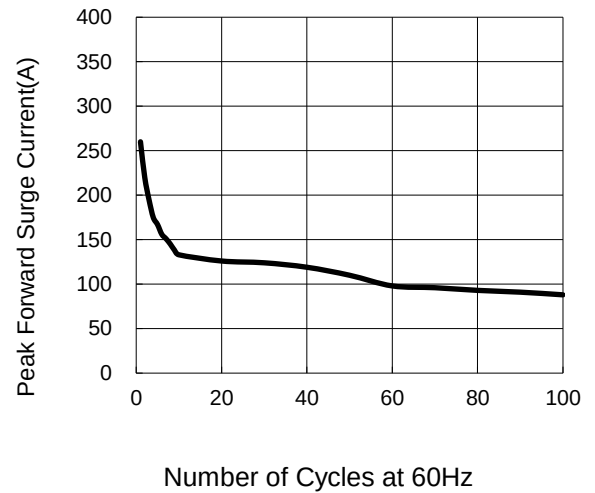
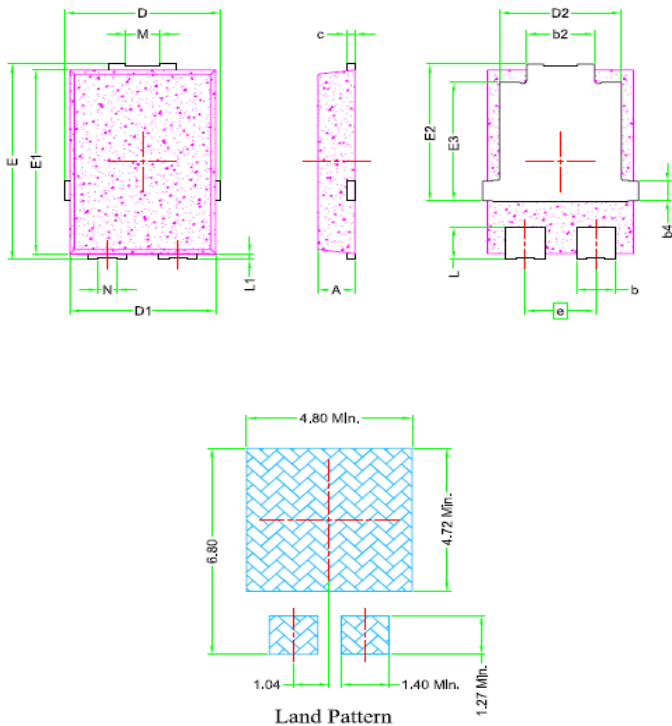


Fig 4. Non-repetitive Forward Surge Current

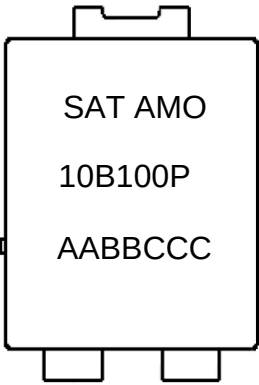


Package Outline Dimensions (in millimeters)

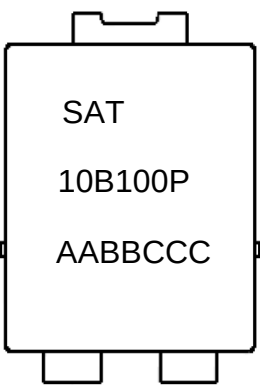


SYMBOL	DIMENSIONS		
	MIN.	NOM.	MAX.
A	1.00	1.10	1.20
b	1.05	1.15	1.35
b2	1.90	2.00	2.20
b4	—	0.75	—
c	0.15	0.25	0.40
D	4.45	4.60	4.75
D1	4.25	4.30	4.35
D2	3.40	3.60	3.70
E	6.35	6.50	6.65
E1	6.05	6.10	6.15
E2	4.40	4.60	4.80
E3	—	3.94	—
e	2.13BSC		
L	0.94	1.09	1.24
L1	0.05	0.20	0.35
M	0.65	1.00	1.15
N	0.25	0.50	0.75

Marking Information



Old Marking



New Marking

- SAT AMO =Product Type Marking Code-Old Marking
- SAT =Product Type Marking Code-New Marking
- 10B100P =Part Number Marking Code
- AABBBCCC =Product Tracking Code