

Surface Mount Schottky Barrier Rectifier 200V Current 10A

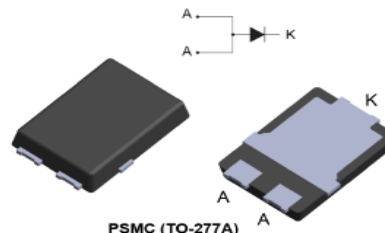
FEATURES AND BENEFITS

- 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-277 Package
- Terminals: Matte Tin annealed over copper
- Weight: Approximated 0.129 grams

Primary Characteristic	
I_O	10A
V_{RRM}	200V
I_{FSM}	180A
V_F Typical=1.5A $T_J=125^\circ\text{C}$	0.45V
T_{jmax}	185°C



Maximum Ratings (Ta=25°C unless otherwise specified)						
Characteristics			Symbol	Value		Unit
Peak Repetitive Reverse Voltage			V _{RRM}	200		V
Working Peak Reverse Voltage			V _{RWM}	200		V
DC Blocking Voltage			V _{DC}	200		V
RMS Reverse Voltage			V _{RMS}	140		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}	180		Amps
Electrical Characteristics (Ta=25°C unless otherwise specified)						
Characteristics			Symbol	Typ.	Max.	Unit
Forward Voltage Drop ⁽¹⁾	IF=1.5A	Ta=25°C	V _F	0.60	0.64	V
	IF=10A	Ta=25°C	V _F	0.79	0.89	V
	IF=1.5A	Ta=125°C	V _F	0.45	0.49	V
	IF=10A	Ta=125°C	V _F	0.64	0.68	V
Reverse Current ⁽²⁾	VR=200V	Ta=25°C	I _R	5	15	μA
	VR=200V	Ta=125°C	I _R	3	10	mA

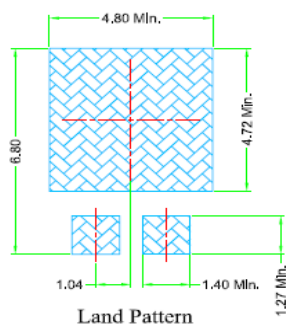
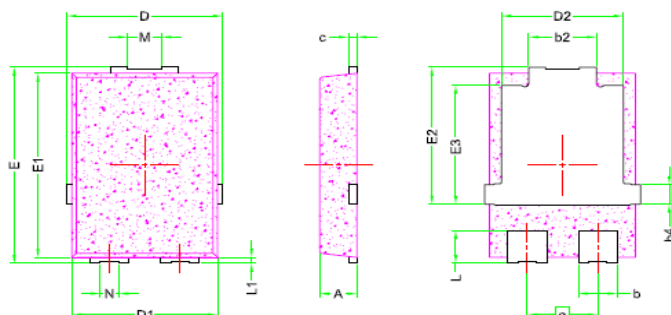
Notes (1): Pulse test: 300 μs pulse width, 1% duty cycle,

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

THERMAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)			
Characteristics	Symbol	Value	Unit
Typical Thermal Resistance, junction to ambient	$R_{\theta JA}$	105	$^\circ\text{C/W}$
Operating Temperature Range (in DC Mode)	T_J	-65 to +185	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to +150	$^\circ\text{C}$

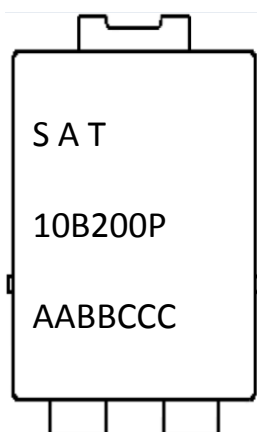
Notes (3): FR-4 PCB, 2oz copper. Minimum recommended pad layout

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



SAT	=Product Type Marking Code
10B200P	=Part Number Marking Code
AABBCCC	=Product Tracking Code