

Single Ultra Low VF Schottky Rectifier

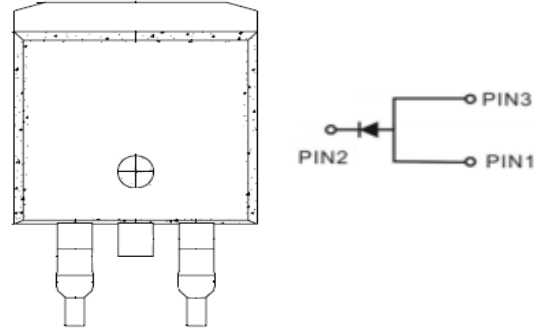
FEATURES AND BENEFITS

- Low power loss, high efficiency operation
- Low forward voltage drop
- Fast switching capability
- High forward surge capability
- Excellent High Temperature Stability

MECHANICAL DATA

- Case: TO-263 Package
- Terminals: Matte Tin annealed over copper
- Weight: Approximated 1.38 grams

Primary Characteristic	
I_O	100A
V_{RRM}	200V
I_{FSM}	880A
V_F Typical=5A, $T_J=125^{\circ}C$	0.43V
T_{Jmax}	175°C



Maximum Ratings ($T_a=25^{\circ}C$ 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	100	Amps
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	880	Amps

Electrical Characteristics ($T_a=25^{\circ}C$ unless otherwise specified)

Characteristics			Symbol	Typ.	Max.	Unit
Forward Voltage Drop	IF=5A	$T_a=25^{\circ}C$	V_F	0.58	0.62	V
	IF=100A	$T_a=25^{\circ}C$	V_F	0.85	0.89	V
	IF=5A	$T_a=125^{\circ}C$	V_F	0.43	0.47	V
	IF=100A	$T_a=125^{\circ}C$	V_F	0.76	0.80	V
Reverse Current	VR=200V	$T_a=25^{\circ}C$	I_R	3	10	μA
	VR=200V	$T_a=125^{\circ}C$	I_R	3	10	mA

THERMAL CHARACTERISTICS ($T_A = 25^{\circ}C$ unless otherwise noted)

Characteristics		Symbol	Value	Unit
Typical Thermal Resistance, junction to case	TO-220AB	$R_{\theta JC}$	2.8	$^{\circ}C/W$
Typical Thermal Resistance, junction to case	ITO-220AB	$R_{\theta JC}$	4.0	$^{\circ}C/W$
Operating Temperature Range (in DC Mode)		T_J	-65 to +175	$^{\circ}C$
Storage Temperature Range		T_{STG}	-65 to +150	$^{\circ}C$

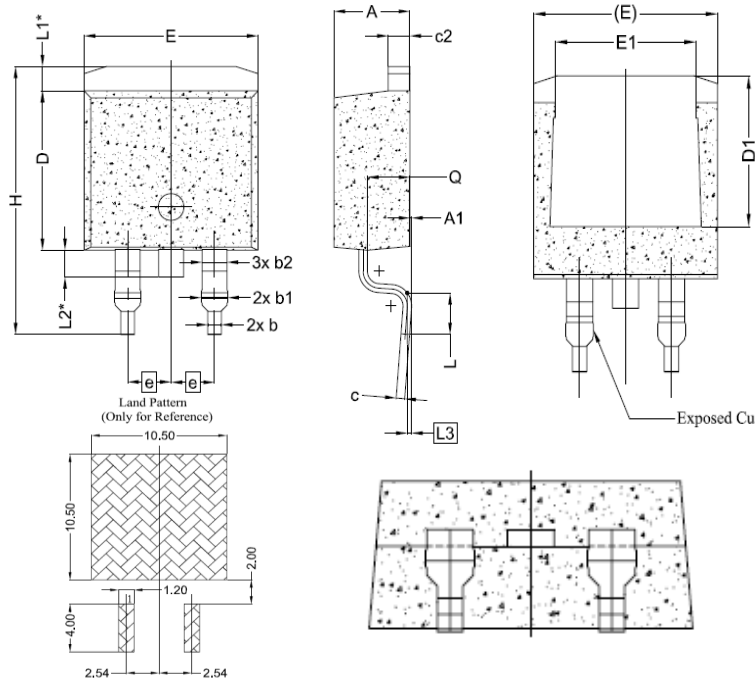
Notes (1): Pulse test: 300 μs pulse width, 1% duty cycle.

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

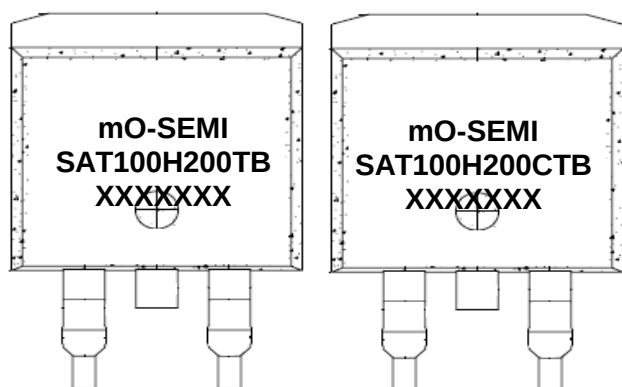
Notes (3): FR-4 PCB, 2oz copper. Minimum recommended pad layout

Package Outline Dimensions (in millimeters)

TO-263				
SYMBOL	Dimensions			
	Millimeters		Inches	
	Min	Max	Min	Max
A	4.24	4.64	0.17	0.18
A1	0.00	0.25	0.00	0.01
b	0.70	0.90	0.03	0.04
b1	1.20	1.75	0.05	0.07
b2	1.20	1.70	0.05	0.07
c	0.40	0.60	0.02	0.02
c2	1.15	1.40	0.05	0.06
D	8.82	9.02	0.35	0.36
D1	6.86	-	0.27	-
E	9.96	10.36	0.39	0.41
E1	6.89	7.89	0.27	0.31
e	2.54BSC			
H	14.61	15.88	0.58	0.63
L	1.78	2.79	0.07	0.11
L1	1.36REF			
L2	1.50REF			
L3	0.25BSC			
Q	2.30	2.70	0.09	0.11



Marking Information



mO-SEMI
SAT100H200
XXXXXXX
*TB=TO-263
*CTB=TO-263

=Series Name
=Part Number Marking Code
=Product Tracking Code
=Single TO-263
=Dual TO-263