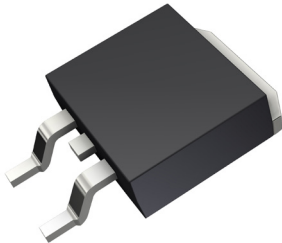


# Schottky Barrier Rectifier

## V<sub>RRM</sub> 120 Volts, 20A

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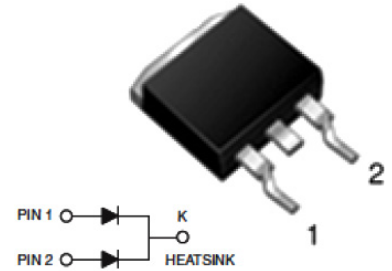
**RoHS  
Compliant**



### Features

- Metal of silicon rectifier
- Majority used for carrier conduction
- Trench Schottky Technology
- Low power loss, high efficiency
- High current capability, low VF
- High surge capacity
- Lead free
- Meet UL flammability classification 94V-0
- Case style: TO-263AB
- Weight: 0.08 ounces, 2.24 grams

TO-263AB



### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristics	Symbol	Values	Unit
Max. Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	120	V
Max. RMS Voltage	V <sub>RMS</sub>	84	
Max. DC Blocking Voltage	V <sub>DC</sub>	120	
Max. Average Forward Rectified Current (See Fig. 1)	I <sub>(AV)</sub>	20	A
Max. Average Forward Rectified Current ( Per Leg )		10	
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load	I <sub>FSM</sub>	210	
Peak repetitive reverse current at t <sub>p</sub> = 2 μs, 1kHz	I <sub>RRM</sub>	1	
Operating Temperature Range	T <sub>J</sub>	-55 to +150	
Storage Temperature Range	T <sub>STG</sub>	-55 to +175	

### Electrical Characteristics

Parameter / Conditions	Symbol	Typ.	Max.	Unit
Breakdown voltage per diode	V <sub>BR</sub>	120 (minimum)	-	V
Instantaneous forward voltage per diode (Note1) IF=5A @ T <sub>J</sub> =25°C IF=5A @ T <sub>J</sub> =125°C IF=10A @ T <sub>J</sub> =25°C IF=10A @ T <sub>J</sub> =125°C	V <sub>F</sub>	0.53	0.59	
		0.48	0.51	
		0.65	0.73	
		0.57	0.61	
Maximum DC Reverse Current @ T <sub>J</sub> = 25°C at Rated DC Blocking Voltage @T <sub>J</sub> = 125°C	I <sub>R</sub>	125 45	μA mA	
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	193	pF	

### Thermal Characteristics

Thermal Resistance Per Diode (Note 3)	R <sub>θJC</sub>	3.5	°C/W
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# Schottky Barrier Rectifier

## V<sub>RRM</sub> 120 Volts, 20A

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### Notes:

1. 300µs pulse width, 2% duty cycle.
2. Measured at 1MHz and applied reverse voltage of 4V DC.
3. Thermal resistance junction to case.

### Rating and Characteristic Curves

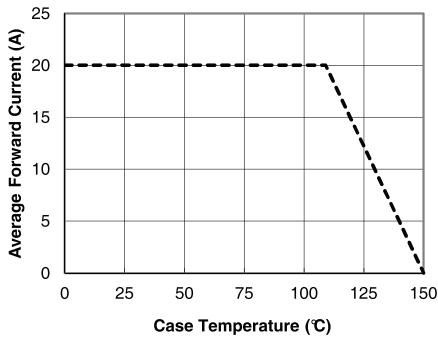


Figure 1. Forward Current Derating Curve

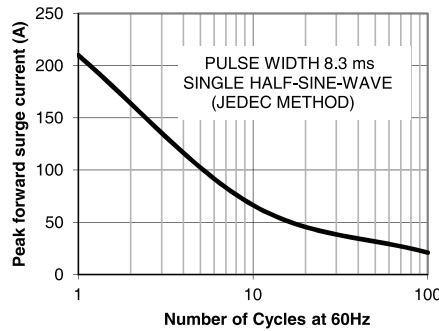


Figure 2. Maximum NON-Repetitive

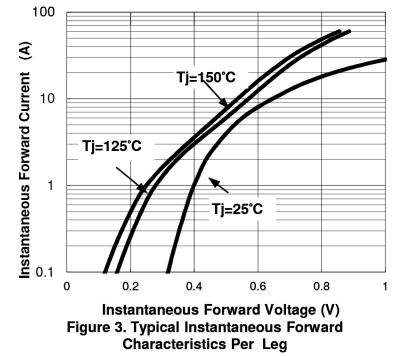


Figure 3. Typical Instantaneous Forward Characteristics Per Leg

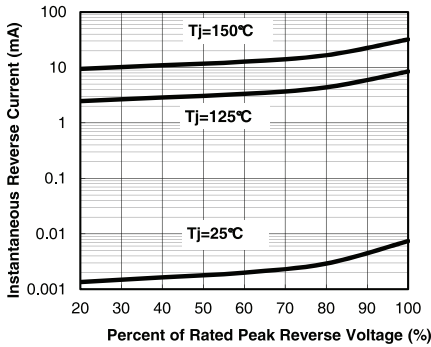


Figure 4. Typical Reverse Characteristics

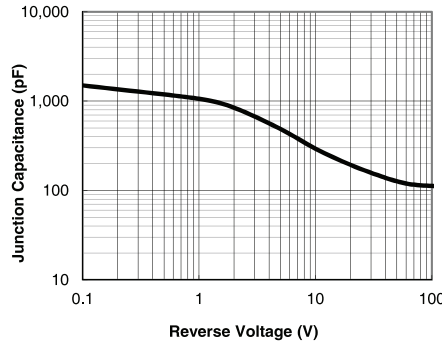


Figure 5. Typical Junction Capacitance

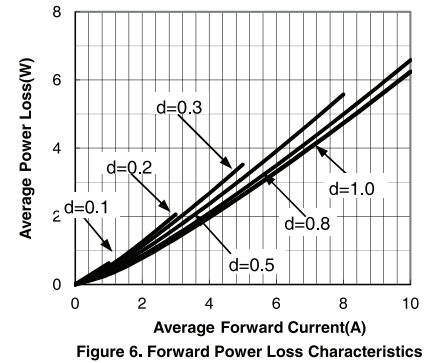
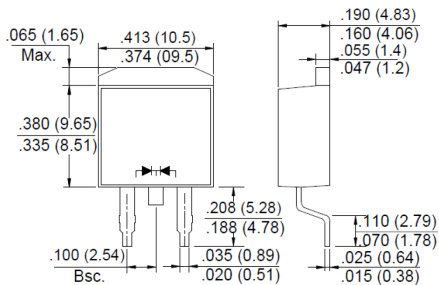


Figure 6. Forward Power Loss Characteristics

### TO-263AB



Dimensions : Inches (Millimetres)

### Part Number Table

Description	Part Number
Schottky Rectifier, Dual, 120V, 20A, TO-263AB	MP001030

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