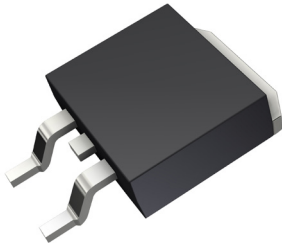


Schottky Barrier Rectifier

V_{RRM} 120 Volts, 20A

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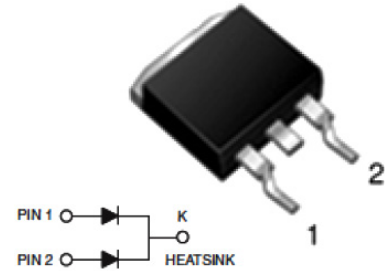
**RoHS
Compliant**



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 _{RRM}	120	V
Max. RMS Voltage	V _{RMS}	84	
Max. DC Blocking Voltage	V _{DC}	120	
Max. Average Forward Rectified Current (See Fig. 1)	I _(AV)	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 _{FSM}	210	
Peak repetitive reverse current at t _p = 2 μs, 1kHz	I _{RRM}	1	
Operating Temperature Range	T _J	-55 to +150	
Storage Temperature Range	T _{STG}	-55 to +175	

Electrical Characteristics

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

Thermal Characteristics

Thermal Resistance Per Diode (Note 3)	R _{θJC}	3.5	°C/W
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Schottky Barrier Rectifier

V_{RRM} 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

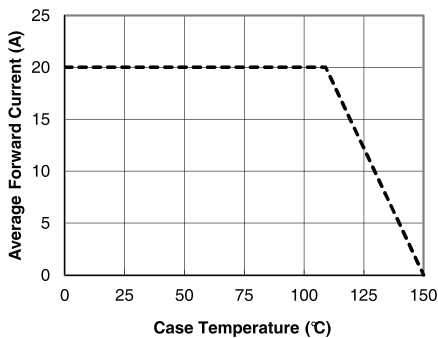


Figure 1. Forward Current Derating Curve

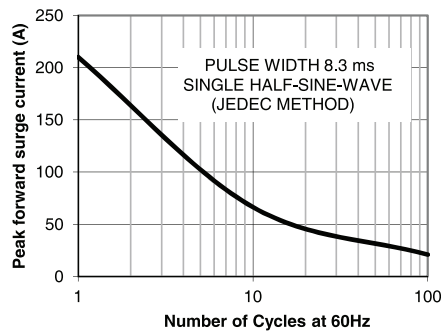


Figure 2. Maximum NON-Repetitive

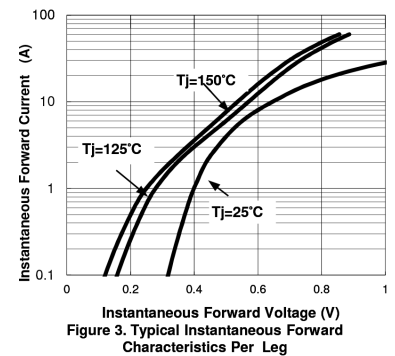


Figure 3. Typical Instantaneous Forward Characteristics Per Leg

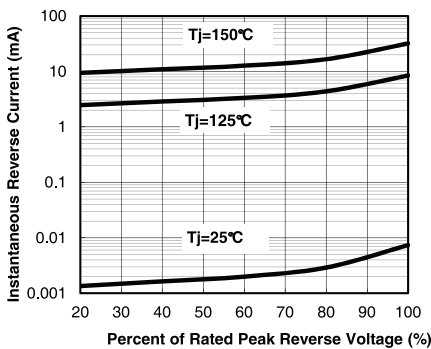


Figure 4. Typical Reverse Characteristics

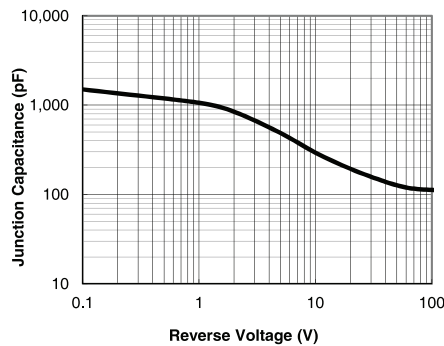


Figure 5. Typical Junction Capacitance

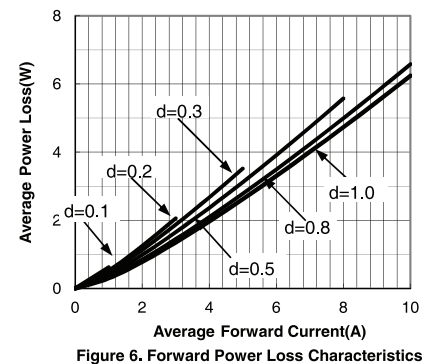
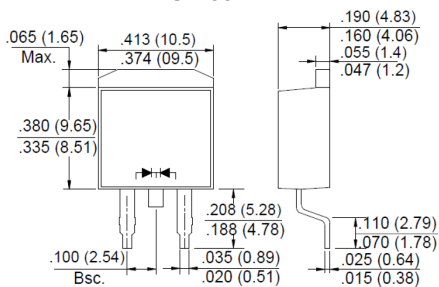


Figure 6. Forward Power Loss Characteristics

TO-263AB



Dimensions : Inches (Millimetres)

Part Number Table

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

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