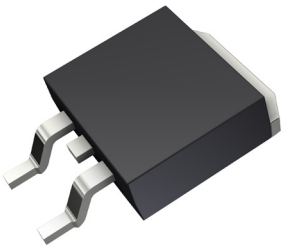
Schottky Barrier Rectifier
VRRM 80 Volts, 20A

multicomp PRO

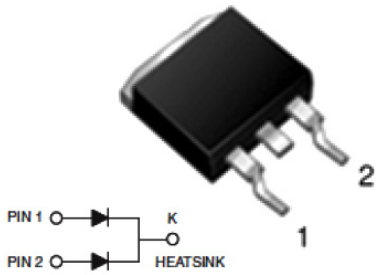
RoHS Compliant



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}	80	V
Max. RMS Voltage	V_{RMS}	56	
Max. DC Blocking Voltage	V_{DC}	80	
Max. Average Forward Rectified Current (See Fig. 1) Max. Average Forward Rectified Current (Per Leg)	$I_{(AV)}$	20 10	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load	I_{FSM}	200	
Peak repetitive reverse current at tp = 2μs, 1kHz	I_{RRM}	1	
Operating Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +175	

Electrical Characteristics

Parameter / Conditions	Symbol	Typ.	Max.	Unit
Breakdown voltage per diode	V_{BR}	85 (minimum)	-	V
Forward voltage (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	 0.47 0.4 0.55 0.51	 0.51 0.43 0.59 0.55	
Maximum DC Reverse Current @ T_J = 25°C at Rated DC Blocking Voltage @T_J = 125°C	I_R	120 40		μA mA
Typical Junction Capacitance (Note 2)	C_J	712		pF

Thermal Characteristics

Thermal Resistance Per Diode (Note 3)	$R_{\theta JC}$	3.5	°C/W

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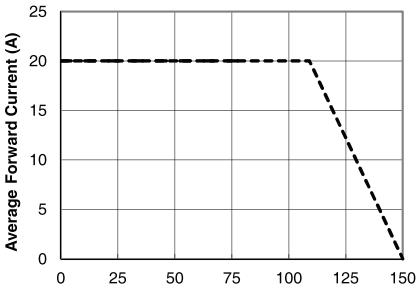
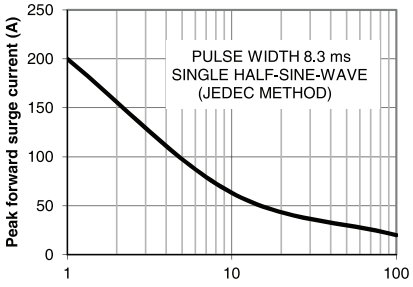
Notes:

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

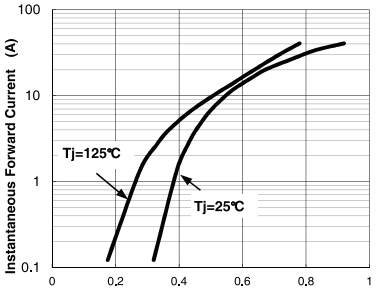
Rating and Characteristic Curves



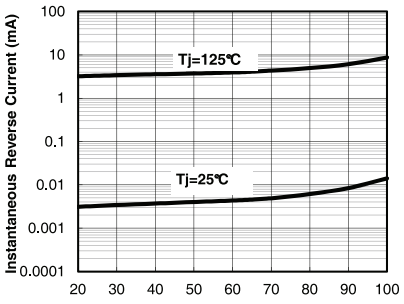
Case Temperature (℃)
Figure 1. Forward Current Derating Curve



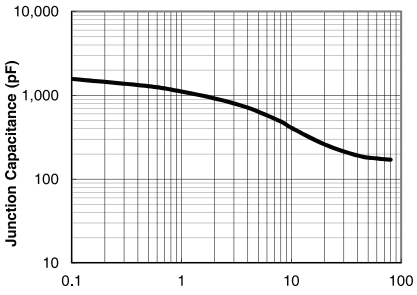
Number of Cycles at 60Hz
Figure 2. Maximum NON-Repetitive



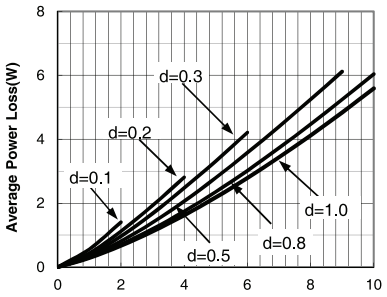
Instantaneous Forward Voltage (V)
Figure 3. Typical Instantaneous Forward Characteristics Per Leg



Percent of Rated Peak Reverse Voltage (%)
Figure 4. Typical Reverse Characteristics

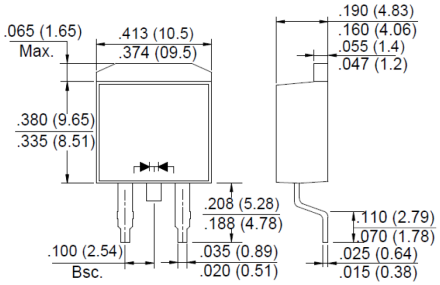


Reverse Voltage (V)
Figure 5. Typical Junction Capacitance



Average Forward Current(A)
Figure 6. Forward Power Loss Characteristics

TO-263AB



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Schottky Rectifier, Dual, 80V, 20A, TO-263AB	MP001031