Schottky Barrier Rectifier

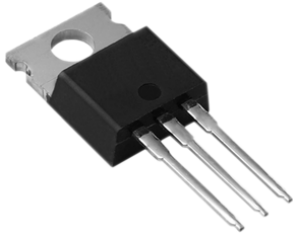**multicomp** PRO

Features

- Metal of silicon rectifier, majority carrier conduction
- Trench schottky technology
- Low power loss, high efficiency
- High current capability, low VF
- High surge capacity
- Plastic package has UL flammability classification 94V-0
- For use in low voltage, high frequency inverters, free wheeling, switching power supplies, DC-DC converter, and polarity protection applications

Mechanical Data

Case : TO-220AB
Polarity : As marked on the body
Weight : 0.08ounces, 2.24 grams
Mounting position : Any

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%

Characteristic	Symbol	Values		Unit
Maximum Ratings (T$_A$ = 25 °C unless otherwise noted)				
Maximum Recurrent Peak Reverse Voltage	V$_{RRM}$	60		V
Maximum RMS Voltage	V$_{RMS}$	42		
Maximum DC Blocking Voltage	V$_{DC}$	60		
Maximum Average Forward Rectified Current (See Fig.1) Maximum 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$_{FSM}$	80		
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 (T$_A$ = 25 °C unless otherwise noted)				
Parameter / Conditions	Symbol	Typ	Max	Unit
Breakdown voltage per diode	V$_{BR}$	61 (minimun)	-	V
Forward Voltage (Note1) I$_F$=5A @T$_J$=25°C I$_F$=5A @T$_J$=125°C I$_F$=10A @T$_J$=25°C I$_F$=10A @T$_J$=125°C	V$_F$	0.42 0.32 0.47 0.4	0.45 0.34 0.49 0.42	V
Maximum DC Reverse Current @T$_J$=25°C at Rated DC Bolcking Voltage @T$_J$=125°C	I$_R$	80 10		µA mA

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Parameter / Conditions	Symbol	Values	Unit
Typical Junction Capacitance (Note 2)	C_J	1012	pF
Thermal Characteristics (T_A = 25 °C unless otherwise noted)			
Parameter	**Symbol**	**Values**	**Unit**
Thermal Resistance Per Diode (Note3)	$R_{\theta JC}$	3	°C/W

Notes:
1. 300µs pulse width, 2% duty cycle.
2. Measured at 1MHz and applied reverse voltage of 5V DC.
3. Thermal resistance junction to case.

Rating and Characteristic Curves
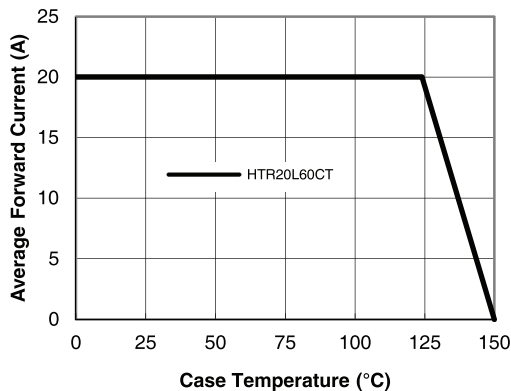
Figure 1. Forward Current Derating Curve
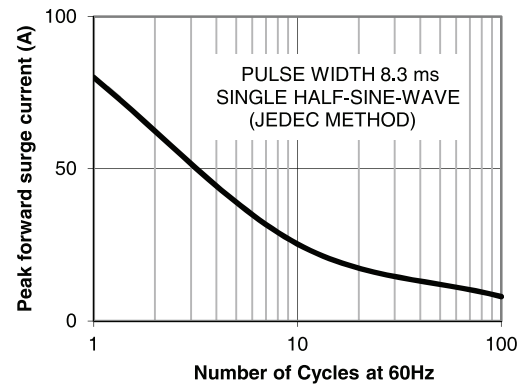
Figure 2. Maximum NON-Repetitive
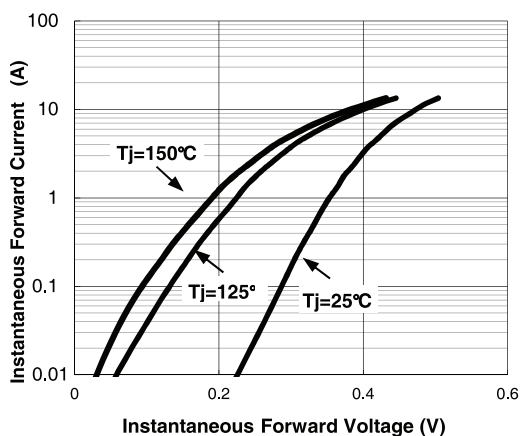
Figure 3. Typical Instantaneous Forward Characteristics Per Leg
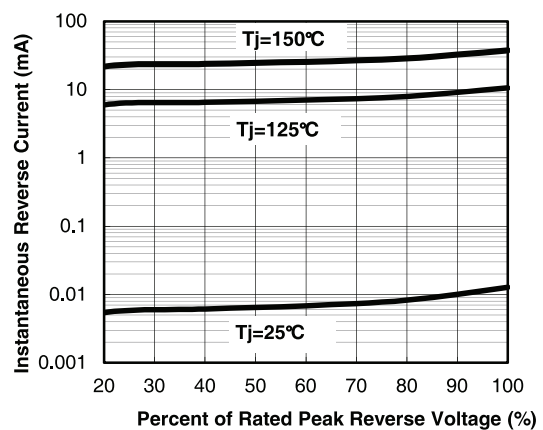
Figure 4. Typical Reverse Characteristics

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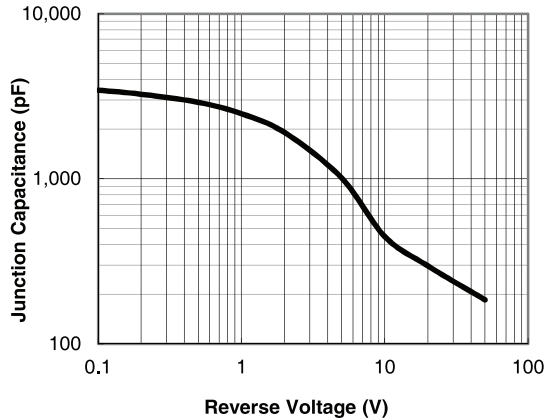
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Figure 5. Typical Junction Capacitance
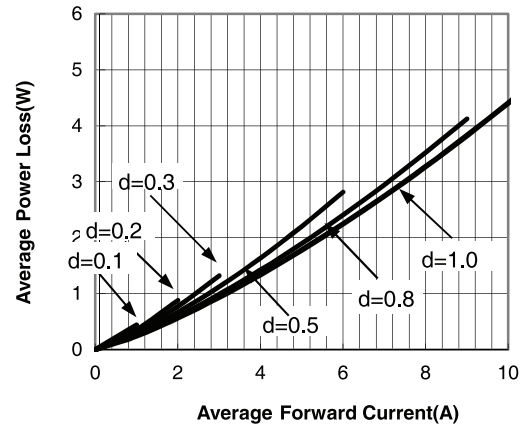
Figure 6. Forward Power Loss Characteristics

Dimension:

TO-220AB
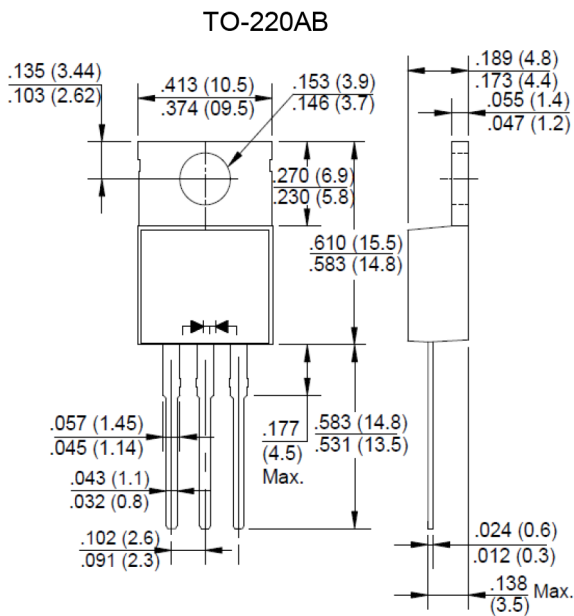
Dimensions : Inches (Millimetres)

Pin Configuration
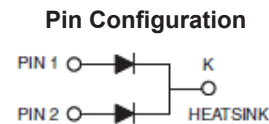
Part Number Table

Description	Part Number
Schottky Barrier Rectifier	HTR20L60CT

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