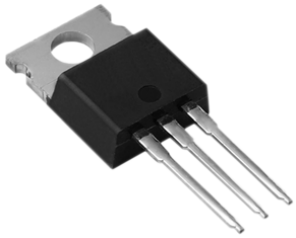
Schottky Barrier Rectifier

multicomp PRO

RoHS Compliant



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}	150		V
Maximum RMS Voltage	V_{RMS}	106		
Maximum DC Blocking Voltage	V_{DC}	150		
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}	170		
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}	150 (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	0.67 0.54 0.9 0.62	0.72 0.58 1 0.68	
Maximum DC Reverse Current @T_J=25°C at Rated DC Bolcking Voltage @T_J=125°C	I_R	45 20		μA mA

Parameter / Conditions	Symbol	Values	Unit
Typical Junction Capacitance (Note 2)	C_J	394	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

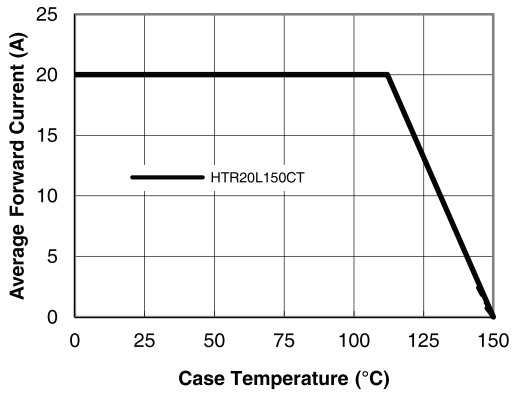


Figure 1. Forward Current Derating Curve

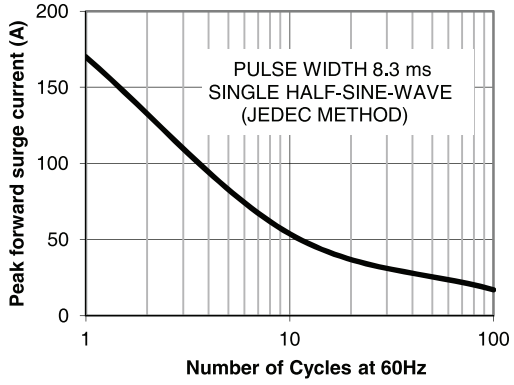


Figure 2. Maximum NON-Repetitive

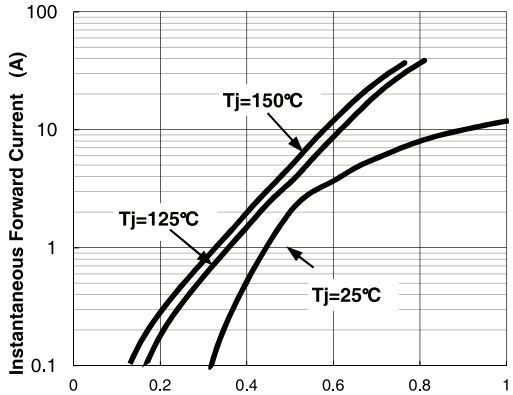


Figure 3. Typical Instantaneous Forward Characteristics Per Leg

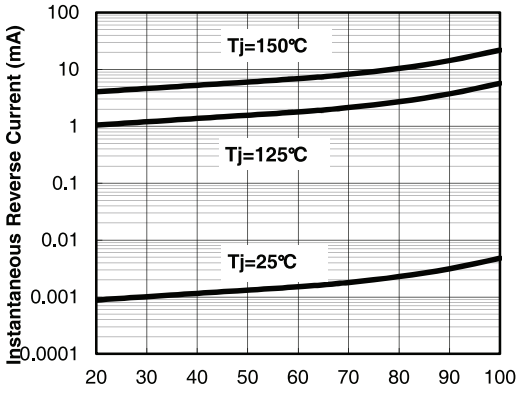


Figure 4. Typical Reverse Characteristics

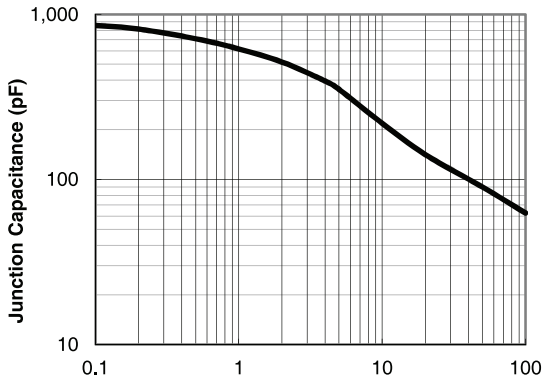


Figure 5. Typical Junction Capacitance

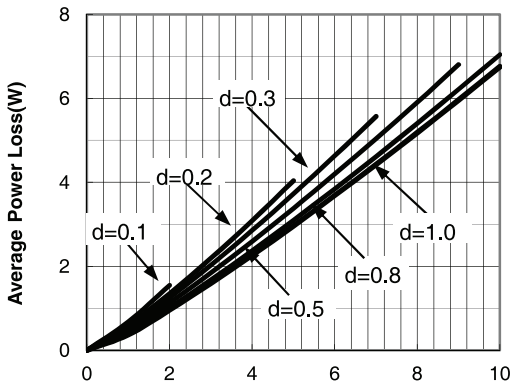
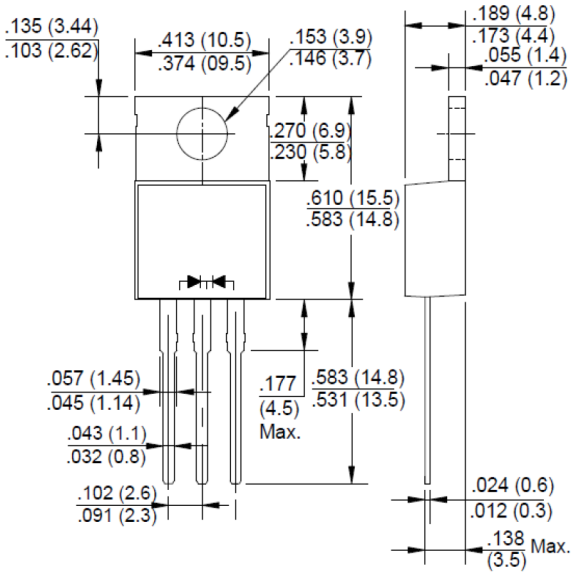


Figure 6. Forward Power Loss Characteristics

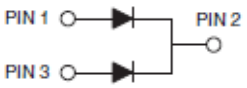
Dimension:

TO-220AB



Dimensions : Inches (Millimetres)

Pin Configuration



Part Number Table

Description	Part Number
Schottky Barrier Rectifier	HTR20L150CT