# 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

#### **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	Val	ues	Unit	
Maximum Ratings (TA = 25 °C unless otherwise noted)					
Maximum Recurrent Peak Reverse Voltage	VRRM	12	20	V	
Maximum RMS Voltage	VRMS	8	4		
Maximum DC Blocking Voltage	VDC	12	20	7	
Maximum Average Forward Rectified Current (See Fig.1) Maximum Average Forward Rectified Current (Per Leg)	I(AV)	20 10			
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load	Ігѕм	120		A	
Peak repetitive reverse current at tp = 2µs, 1kHz	IRRM			╗	
Operating Temperature Range	TJ	-55 to +150		°C	
Storage Temperature Range	Tstg	-55 to +175			
Electrical Characteristics (TA = 25 °C unless otherwise	noted)				
Parameter / Conditions	Symbol	Тур	Max	Unit	
Breakdown voltage per diode	V <sub>BR</sub>	120 (minimun)	_		

Parameter / Conditions	Symbol	Тур	Max	Unit
Breakdown voltage per diode	VBR	120 (minimun)	-	
Forward Voltage (Note1)	VF	0.58 0.53 0.75 0.64	0.62 0.57 0.8 0.68	V
Maximum DC Reverse Current @T <sub>J</sub> =25°C at Rated DC Bolcking Voltage @T <sub>J</sub> =125°C	lr	80 50		μA mA

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Parameter / Conditions	Symbol	Values	Unit	
Typical Junction Capacitance (Note 2)	CJ	300	pF	
Thermal Characteristics (T <sub>A</sub> = 25 °C unless otherwise noted)				
Parameter	Symbol	Values	Unit	
Thermal Resistance Per Diode (Note3)	Rелс	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**

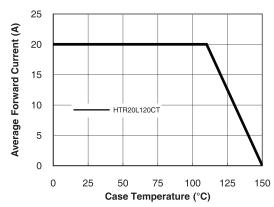


Figure 1. Forward Current Derating Curve

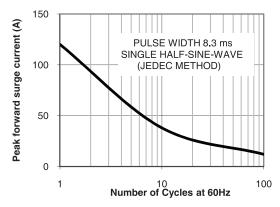
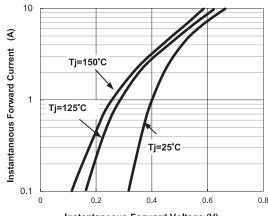


Figure 2. Maximum NON-Repetitive



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

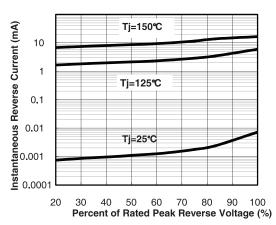


Figure 4. Typical Reverse Characteristics

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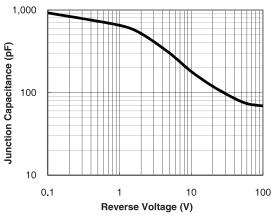


Figure 5. Typical Junction Capacitance

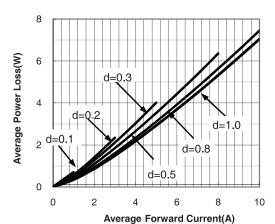
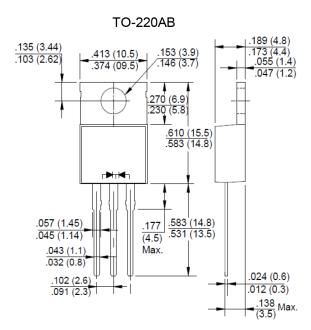


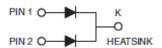
Figure 6. Forward Power Loss Characteristics

#### **Dimension:**



Dimensions: Inches (Millimetres)

#### **Pin Configuration**



#### Part Number Table

Description	Part Number	
Schottky Barrier Rectifier	HTR20L120CT	

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