

TECHNICAL DATA DATA SHEET 902, REV. -

# HERMETIC POWER SCHOTTKY RECTIFIER Low Forward Voltage Drop

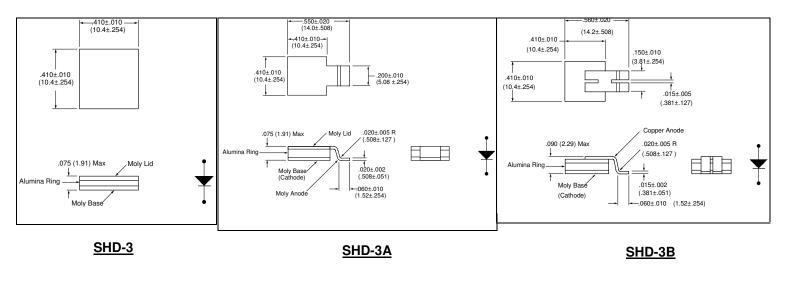
DESCRIPTION: A 45 VOLT, 120 AMP, POWER SCHOTTKY RECTIFIER IN A SHD-3/3-A/3-B PACKAGE.

MAXIMUM RATINGS ALL RATIN	ALL RATINGS ARE @ T <sub>c</sub> = 25 °C UNLESS OTHERWISE SPECIFIED.				
RATING		SYMBOL	MAX.	UNITS	
PEAK INVERSE VOLTAGE		PIV	45	Volts	
MAXIMUM DC OUTPUT CURRENT @ T <sub>C</sub> =100 <sup>O</sup> C		lo	120	Amps	
MAXIMUM NONREPETITIVE FORWARD SURGE CURRENT (t = 8.3ms, Sine)		I <sub>FSM</sub>	1650	Amps	
MAXIMUM JUNCTION CAPACITANCE	$(V_r = 5V)$	C <sub>T</sub>	4800	pF	
MAXIMUM THERMAL RESISTANCE (Junction to cathode)		$R_{ ext{ heta}JC}$	0.2	°C/W	
MAXIMUM OPERATING AND STORAGE TEMPERATURE RA	NGE	Top/Tstg	-65 to + 150	°C	

## **ELECTRICAL CHARACTERISTICS**

CHARACTERISTIC		SYMBOL	MAX.	UNITS
MAXIMUM FORWARD VOLTAGE DROP, Pulsed	(I <sub>f</sub> = 120 Amps)			
	$T_J = 25 \ ^{\circ}C$	V <sub>f</sub>	0.60	Volts
	T <sub>J</sub> = 125 °C		0.57	
MAXIMUM REVERSE CURRENT (Ir @ 45 V PIV)				
	$T_J = 25 \ ^{\circ}C$	l <sub>r</sub>	9.0	mA
	T <sub>J</sub> = 125 °C		420	

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#### **Typical Forward Characteristics Typical Reverse Characteristics** 10<sup>3</sup> Instantaneous Reverse Current - I<sub>R</sub> (mA) 150 ℃ 10<sup>2</sup> 10<sup>2</sup> 125 ℃ 150 ℃\_ 100 °C 10<sup>1</sup> -75 ℃ Instantaneous Forward Current - $I_F$ (A) 10<sup>0</sup> 10<sup>1</sup> 50 °C 10<sup>-1</sup> 125 °C 25 °C 10<sup>-2</sup> 25 °C 20 30 40 Reverse Voltage - V<sub>R</sub> (V) 0 10 50 **Typical Junction Capacitance** 10<sup>0</sup> $C_{T}(pF)$ 4500 4000 - 4000 3500 2500 2500 2000 Junction 1500 10<sup>-1</sup> 1000 0.0 0.2 0.4 0.6 0.8 0 10 20 30 50 40 Forward Voltage Drop - V<sub>F</sub> (V)

### **MECHANICAL DIMENSIONS: In Inches / mm**

Reverse Voltage - V<sub>R</sub> (V)



### **TECHNICAL DATA**

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