

TECHNICAL DATA DATASHEET 4743, REV. -

# HERMETIC POWER SCHOTTKY RECTIFIER 200°C Maximum Operation Temperature

**DESCRIPTION:** A 200-VOLT, 35 AMP, POWER SCHOTTKY RECTIFIER IN A HERMETIC TO-254 PACKAGE.

#### **MAXIMUM RATINGS**

ALL RATINGS ARE @  $T_C$  = 25 °C UNLESS OTHERWISE SPECIFIED.

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RATING	SYMBOL	MAX.	UNITS		
PEAK INVERSE VOLTAGE	PIV	200	Volts		
MAXIMUM DC OUTPUT CURRENT (@ T <sub>C</sub> =100 <sup>O</sup> C) (Single, Doubler)	Io	35	Amps		
MAXIMUM NONREPETITIVE FORWARD SURGE CURRENT (t=8.3ms, Sine)	I <sub>FSM</sub>	150	Amps		
MAXIMUM JUNCTION CAPACITANCE (V <sub>r</sub> =5V)	C <sub>T</sub>	1800	pF		
MAXIMUM THERMAL RESISTANCE (Single)	$R_{ heta JC}$	0.33	°C/W		
MAXIMUM OPERATING TEMPERATURE RANGE	Top/Tstg	-65 to + 200	လူ		
MAXIMUM STORAGE TEMPERATURE RANGE	Top/Tstg	-65 to + 200	Ô		

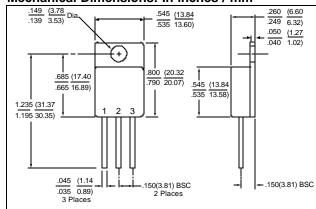
#### **ELECTRICAL CHARACTERISTICS**

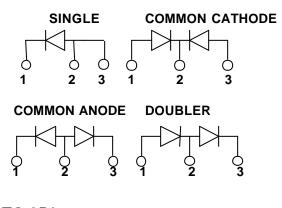
CHARACTERISTIC	SYMBOL	MAX.	UNITS
MAXIMUM FORWARD VOLTAGE DROP, Pulsed (I <sub>f</sub> = 35 Amps)			
T <sub>J</sub> = 25 °C	$V_{f}$	1.05	Volts
T <sub>J</sub> = 125 °C		0.87	
MAXIMUM REVERSE CURRENT (I <sub>r</sub> @ 200 V PIV)			
T <sub>J</sub> = 25 °C	I <sub>r</sub>	2.1	mA
T <sub>J</sub> = 125 °C		48	

### **SENSITRON**

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#### Mechanical Dimensions: In inches / mm





# TO-254

#### **PINOUT TABLE**

I INOUT TABLE					
TYPE	PIN 1	PIN 2	PIN 3		
SINGLE RECTIFIER	CATHODE	ANODE	ANODE		
DUAL RECTIFIER, COMMON CATHODE (P)	ANODE 1	COMMON CATHODE	ANODE 2		
DUAL RECTIFIER, COMMON ANODE (N)	CATHODE 1	COMMON ANODE	CATHODE 2		
DUAL RECTIFIER, DOUBLER (D)	ANODE	CATHODE/ ANODE	CATHODE		
\Curves shown are for bare die only.	7				
Typical Forward Characteristics	Typical Reverse Characteristics				
102	(F) 10 <sup>1</sup>	200 °C			
	, a	175 °C			
	nstantaneous Reverse Current - I <sub>R</sub> (mA)  101  101  101  101	150 °C			
200 °C	Se Curi	125 °C			
€ 10 <sup>1</sup> 175 °C //	Revers 10-1	100 °C			
± 7///	90 10 <sup>-2</sup>	75 °C			
Correction of the second of th	stantar	50 °C			
wa ad	10-3				
<u>u</u> 10°	10-4	25 °C			
(v) 10 <sup>1</sup> 10 <sup>0</sup> 125 °C 125 °C	0	40 80 120 160 200 Reverse Voltage - ¼ (V)	240		
lustau lustau		Typical Junction Capacitance	e		
25 °C	2000 L (a) L (b) L (b) L (c) L				
10-1	O 1500				
	d g				
	- 1000 S				
	Ö C 500				
	tion cation				
10-2	•				
0.0 0.2 0.4 0.6 0.8 1.0 0 40 80 120 160 200 240  Forward Voltage Drop - ½ (V) Reverse Voltage - ½ (V)					
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