

## High-reliability discrete products and engineering services since 1977

### 1N6097-1N6098

### **50 AMP SCHOTTKY RECTIFIER**

#### **FEATURES**

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.

#### **MAXIMUM RATINGS**

Parameter	Symbol	Value
Storage temperature range	T <sub>STG</sub>	-65 to +150°C
Operating junction temperature range	T,	-65 to +150°C
Maximum thermal resistance	$R_{\theta JC}$	1.0°C/W junction to Case
Maximum mounting torque		30 inch pounds maximum
Weight		0.54 ounces (15.3 grams) typical

#### **ELECTRICAL CHARACTERISTICS** (T<sub>A</sub> = 25°C unless otherwise specified)

Parameter	Symbol	1N6097	1N6098	Test Condition
Working peak reverse voltage	$V_{RWM}$	30V	40V	
Peak repetitive reverse voltage	$V_{RRM}$	30V	40V	
Average forward current	I <sub>F(AV)</sub>	50A		$T_C = 70$ °C, square wave, $R_{\theta JC} = 1.0$ °C/W
Maximum surge current	I <sub>FSM</sub>	800A		8.3ms, half sine T <sub>J</sub> = 150°C
Maximum repetitive peak reverse current	I <sub>R(OV)</sub>	2A		f = 1 KHz, 25°C, 1 μsec square wave
Maximum peak forward voltage	V <sub>FM</sub>	.60V		I <sub>FM</sub> = 10A: T <sub>J</sub> = 25°C*
Maximum peak forward voltage	V <sub>FM</sub>	.8	6V	I <sub>FM</sub> = 157A, T <sub>J</sub> = 70°C*
Maximum peak reverse current	I <sub>RM</sub>	250mA		V <sub>RRM</sub> , T <sub>J</sub> = 125°C*
Maximum peak reverse current	I <sub>RM</sub>	2r	nA	V <sub>RRM</sub> , T <sub>J</sub> = 25°C
Typical junction capacitance	CJ	700	00pF	V <sub>R</sub> = 1.0V, T <sub>J</sub> = 25°C

Pulse test: Pulse width 300  $\mu$ sec, duty cycle 2%



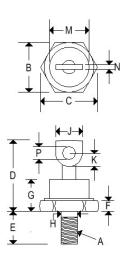
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#### MECHANICAL CHARACTERISTICS

Case	DO-5(R)
Marking	Alpha numeric
Normal polarity	Cathode is stud
Reverse polarity	Anode is stud (add "R" suffix)



	DO-5(R)					
	Inches		Millimeters			
	Min	Max	Min	Max		
Α	1/4-28 UNF2A threads					
В	0.669	0.688	16.990	17.480		
С	-	0.794	-	20.160		
D	-	1.000	-	25.400		
Е	0.422	0.453	10.720	11.510		
F	0115	0.200	2.920	5.080		
G	-	0.450	-	11.430		
Н	0.220	0.249	5.580	6.320		
J	0.250	0.375	6.350	9.530		
K	0.156	-	3.960	-		
М	-	0.667	-	16.940		
N	0.030	0.080	0.760	2.030		
Р	0.140	0.175	3.560	4.450		



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