

# 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 <sub>J</sub>	-65 to +150°C
Maximum thermal resistance	R <sub>θJC</sub>	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 <sub>RWM</sub>	30V	40V	
Peak repetitive reverse voltage	V <sub>RRM</sub>	30V	40V	
Average forward current	I <sub>F(AV)</sub>	50A		T <sub>C</sub> = 70°C, square wave, R <sub>θJC</sub> = 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>	.86V		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>	2mA		V <sub>RRM</sub> , T <sub>J</sub> = 25°C
Typical junction capacitance	C <sub>J</sub>	7000pF		V <sub>R</sub> = 1.0V, T <sub>J</sub> = 25°C

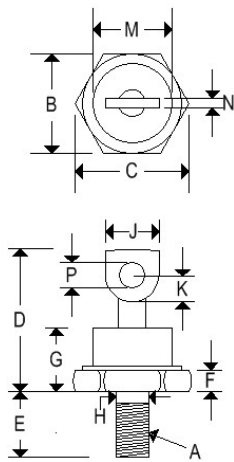
Pulse test: Pulse width 300 μsec, duty cycle 2%

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### MECHANICAL CHARACTERISTICS

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



	DO-5(R)			
	Inches		Millimeters	
	Min	Max	Min	Max
<b>A</b>	¼-28 UNF2A threads			
<b>B</b>	0.669	0.688	16.990	17.480
<b>C</b>	-	0.794	-	20.160
<b>D</b>	-	1.000	-	25.400
<b>E</b>	0.422	0.453	10.720	11.510
<b>F</b>	0.115	0.200	2.920	5.080
<b>G</b>	-	0.450	-	11.430
<b>H</b>	0.220	0.249	5.580	6.320
<b>J</b>	0.250	0.375	6.350	9.530
<b>K</b>	0.156	-	3.960	-
<b>M</b>	-	0.667	-	16.940
<b>N</b>	0.030	0.080	0.760	2.030
<b>P</b>	0.140	0.175	3.560	4.450

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