

**40HFR160**

**STANDARD RECOVERY DIODE**



**Features**

- Standard recovery diode
- Available in Normal and Reverse polarity
- Stud anode version
- Industrial grade
- Available in avalanche characteristic
- Available in metric and UNF thread
- DO-5 – 1/4" 28UNF-2A

**Typical applications**

- Battery charges
- Converters
- Power supplies
- Machine tool controls
- Welding

Compliance to RoHS.

**ELECTRICAL SPECIFICATIONS ( T<sub>e</sub> = 25°C)**

<b>Symbol</b>	<b>Ratings</b>		<b>Value</b>	<b>Unit</b>
<b>V<sub>RRM</sub></b>	Maximum repetitive peak reverse voltage	T <sub>e</sub> = 25°C	1600	V
<b>I<sub>F(AV)</sub></b>	Maximum average forward current	T <sub>e</sub> = 140°C	40	A
<b>V<sub>FM</sub></b>	Maximum peak forward voltage drop	I <sub>F(AV)</sub> rated	1.2	V
<b>I<sub>FSM</sub></b>	Maximum peak one cycle (non-rep) surge current	10 ms	500	A
<b>I<sub>FRM</sub></b>	Maximum peak repetitive surge current		200	A
<b>I<sup>2</sup>t</b>	Maximum I <sup>2</sup> t rating (non-rep)	For 5 to 10 ms	1200	A <sup>2</sup> s



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### THERMAL CHARACTERISTICS

Symbol	Ratings	Value	Unit
$R_{thJC}$	Maximum thermal resistance, junction to case	1	°C/W
$T_J$	Operating junction temperature range	-65 to 150	°C
$T_{stg}$	Storage temperature	-65 to 200	°C
<b>F</b>	Mounting torque (non-lubricated threads)	>0.4 <0.6	M·kg
<b>W</b>	Approximate weight	13.5 & 30	gr.

### ELECTRICAL CHARACTERISTICS

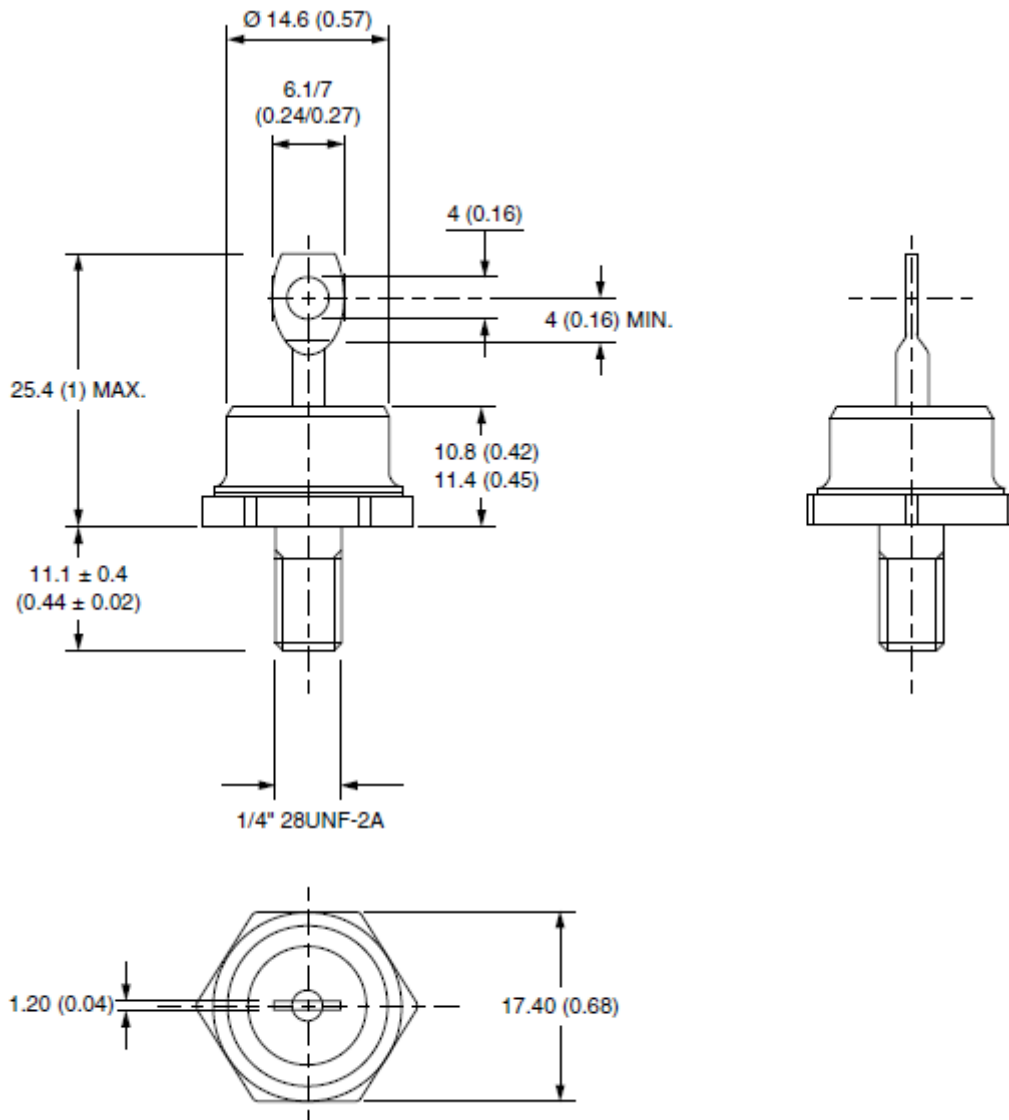
TE=25°C unless otherwise noted

Symbol	Ratings	Test Condition(s)	Min	Typ	Max	Unit
$V_{RRM}$	Repetitive peak reverse blocking voltage	$T_j = -25^{\circ}\text{C}$ to $+125^{\circ}\text{C}$	1600	-	-	V
$V_{RSM}$	Maximum D.C. blocking voltage	$T_j = -25^{\circ}\text{C}$ to $+125^{\circ}\text{C}$	1600	-	-	V
$V_{R(RMS)}$	Maximum RMS reverse voltage	$T_j = -25^{\circ}\text{C}$ to $+125^{\circ}\text{C}$	1120	-	-	V
	Recommended R.M.S. working voltage	$T_j = -25^{\circ}\text{C}$ to $+125^{\circ}\text{C}$	640	-	-	V
$I_{R(AV)}$	Max. Average reverse leakage current	$V_{RRM} = 1600\text{ V}$ $T_j = -25^{\circ}\text{C}$	200	-	-	μA



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### MECHANICAL DATA CASE DO-5 in millimeters (inches)



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