

## SILICON RECTIFIERS

### 60 Ampere Silicon Power Diodes

#### FEATURES

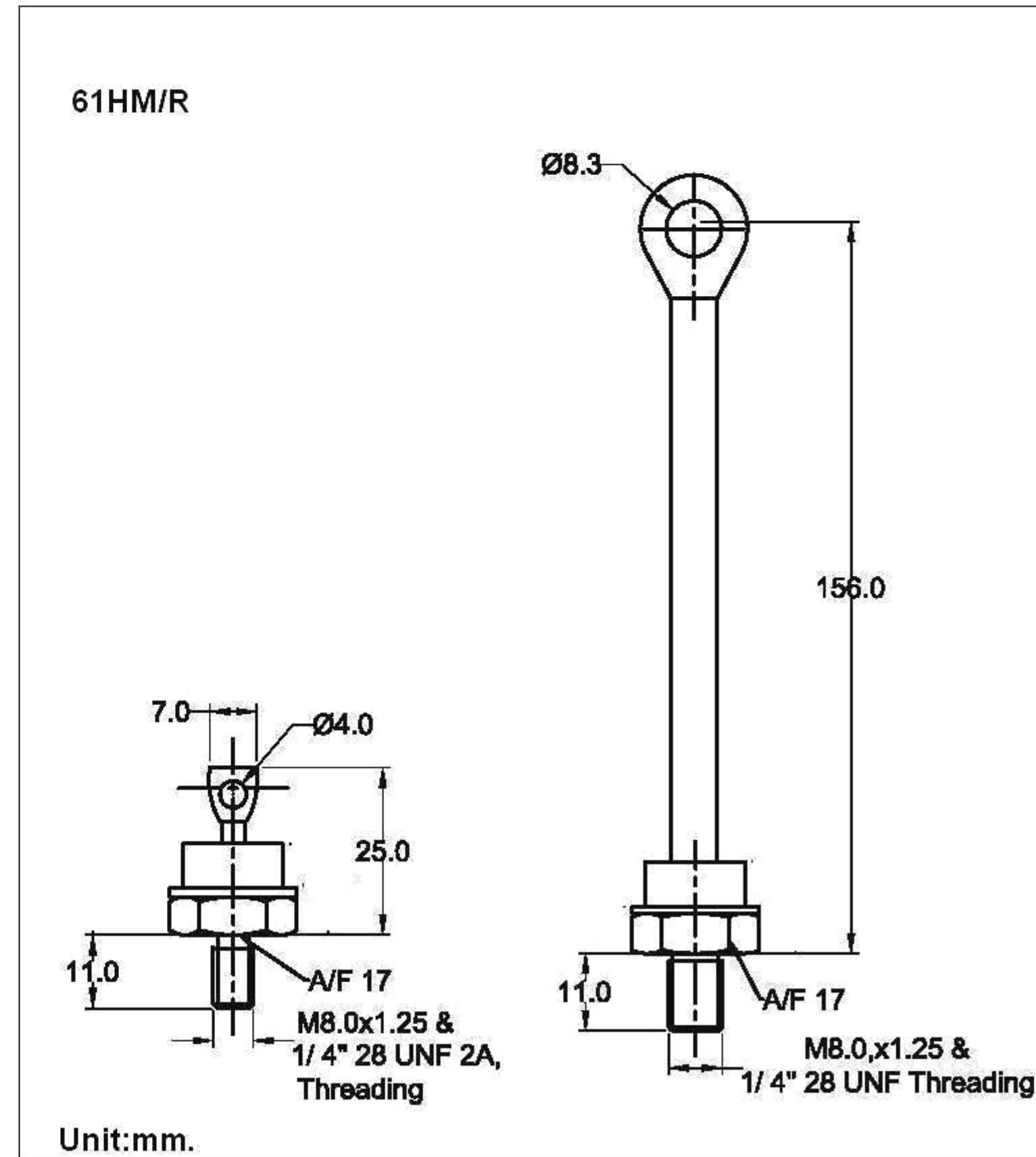
- ❖ Diffused series.
- ❖ Available in normal & reverse polarity.
- ❖ Device conforms to IS 3700 (III) & IS 4400 (III).
- ❖ Device outline conforms to IS 5000 (Do. 5).
- ❖ Available in avalanche characteristic.

#### ELECTRICAL SPECIFICATIONS

$I_{F(AV)}$	Maximum average forward current $T_c = 140^\circ\text{C}$	60 A
$V_{FM}$	Maximum peak forward voltage drop @ Rated $I_{F(Peak)}$	1.35 V
$I_{FSM}$	Maximum peak one cycle (non-rep.) surge current 10 msec.	860 A
$I_{FRM}$	Maximum repetitive peak forward current	300 A
$I^2t$	Max. $I^2t$ rating (non-rep.) 10 msec.	3700 A <sup>2</sup> Sec
$V_{F(TO)}$	Max, value of threshold voltage	0.79V
rf	Max, value of forward slop resistance	2.33 m $\Omega$

#### THERMAL MECHANICAL SPECIFICATIONS

$\theta_{J-C}$	Maximum thermal resistance junction to case	0.55 <sup>o</sup> C/W
$\theta_{C-H}$	Contact thermal resistance	0.25 <sup>o</sup> C/W
$T_J$	Operating junction temp.	-65 <sup>o</sup> C to 175 <sup>o</sup> C
$T_{stg}$	Storage temperature	-65 <sup>o</sup> C to 175 <sup>o</sup> C
	Mounting torque (Non-lubricated threads)	0.4 M-Kg min. 0.6 M-Kg max.
W	Approx. weight	40 gms.



#### ELECTRICAL RATINGS

TYPE NUMBER	61 HM/HMR	40	60	80	100	120	140	160
$V_{RRM}$	Max. repetitive peak reverse voltage (V)	400	600	800	1000	1200	1400	1600
$V_{RSM}$	Max. non-repetitive peak reverse voltage (V)	500	700	900	1100	1300	1500	1700
$V_{R(RMS)}$	Max. R.M.S. reverse voltage (V)	280	420	560	700	840	980	1120
$V_R$	Max. D.C. Blocking voltage (V)	400	600	800	1000	1200	1400	1600
	Recommended R.M.S. working voltage (V)	160	240	320	400	480	560	640
$I_R$	Max. Peak reverse leakage current @ $V_{RRM}, T_c$ (mA)	5	5	5	5	5	5	5

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## ORDER INFORMATION TABLE

61H	M/F	R	40	G	M6
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①                  ②                  ③                  ④                  ⑤                  ⑥

- ① - 61H - without external lead  
61H - with external lead
- ② - M - stud with Metric threading  
F - Stud with 1/4"UNF threading
- ③ - None - Normal polarity  
R - Reverse polarity
- ④ - Voltage Rating (See table)
- ⑤ - None - Normal seal  
G - Rotating seal
- ⑥ - None - M8 Metric Threading  
M6 - M6 Metric threading

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## 61 HM / HMR SERIES

