



Ruttonsha International Rectifier Ltd.

SILICON RECTIFIERS

70 Ampere Silicon Power Diodes

FEATURES

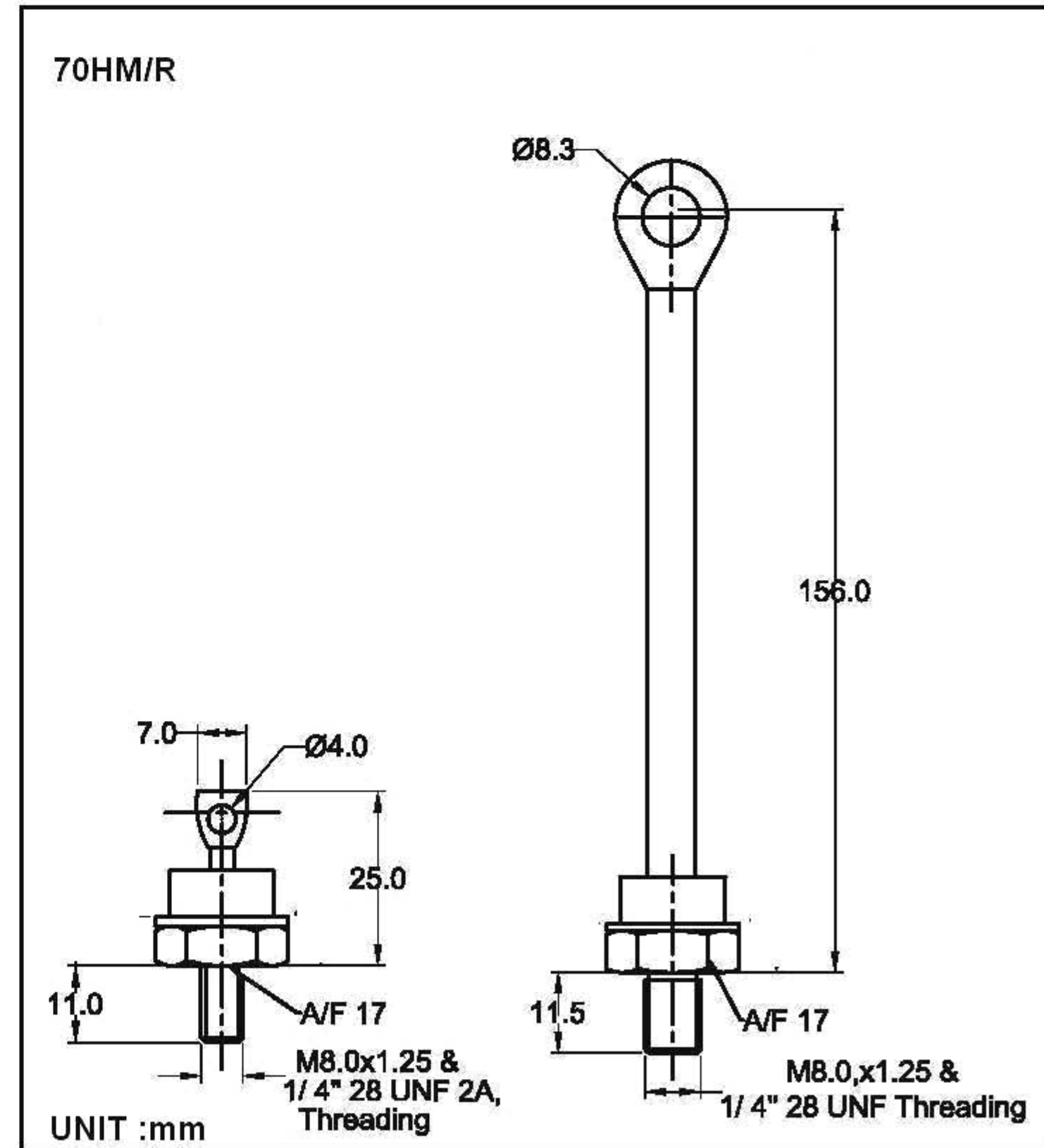
- ❖ Diffused series.
- ❖ Available in normal & reverse polarity.
- ❖ Device conforms to IS 3700 (III) & IS 4400 (III).
- ❖ Device outline conforms to IS 5000 (Do. 5).
- ❖ Available in avalanche characteristic.

ELECTRICAL SPECIFICATIONS

$I_{F(AV)}$	Maximum average forward current $T_c = 140^\circ\text{C}$	70 A
V_{FM}	Maximum peak forward voltage drop @ Rated $I_{F(AV)}$	1.35 V
I_{FSM}	Maximum peak one cycle (non-rep.) surge current 10 msec.	1000 A
I_{FRM}	Maximum repetitive peak forward current	350 A
I^2t	Max. I^2t rating (non-rep.) for 5 to 10 msec.	5000 A ² Sec
$V_{F(TO)}$	Max, value of threshold voltage	0.79V
r_f	Max, value of forward slop resistance	2.33 m Ω

THERMAL MECHANICAL SPECIFICATIONS

θ_{J-C}	Maximum thermal resistance junction to case	0.50 $^\circ\text{C/W}$
θ_{C-H}	Contact thermal resistance	0.25 $^\circ\text{C/W}$
T_J	Operating junction temp.	-65 $^\circ\text{C}$ to 175 $^\circ\text{C}$
T_{stg}	Storage temperature	-65 $^\circ\text{C}$ to 175 $^\circ\text{C}$
	Mounting torque (Non-lubricated threads)	0.4 M-Kg min. 0.6 M-Kg max.
W	Approx. weight	40 gms.



AVALANCHE RATING : Avalanche versions available with the following reverse power rating, to specify add prefix 'A' e.g. A 70 HMR 120 etc.

N. B. : All other Parameters are the same as 70 H

		A 70 H	UNITS	CONDITIONS
P_R	Maximum non-repetitive peak reverse power	18	KW	10 μS Square pulse

ELECTRICAL RATINGS

TYPE NUMBER	70 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

SILICON RECTIFIERS

ORDER INFORMATION TABLE

70 H	M/F	R	40	G	M6
①	②	③	④	⑤	⑥

- ① - 70 H - without external lead
70 H - 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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70 HM / HMR SERIES

