

RUTTONSHA

Ruttonsha International Rectifier Ltd.

SILICON RECTIFIERS

25/40 Ampere Silicon Power Diodes

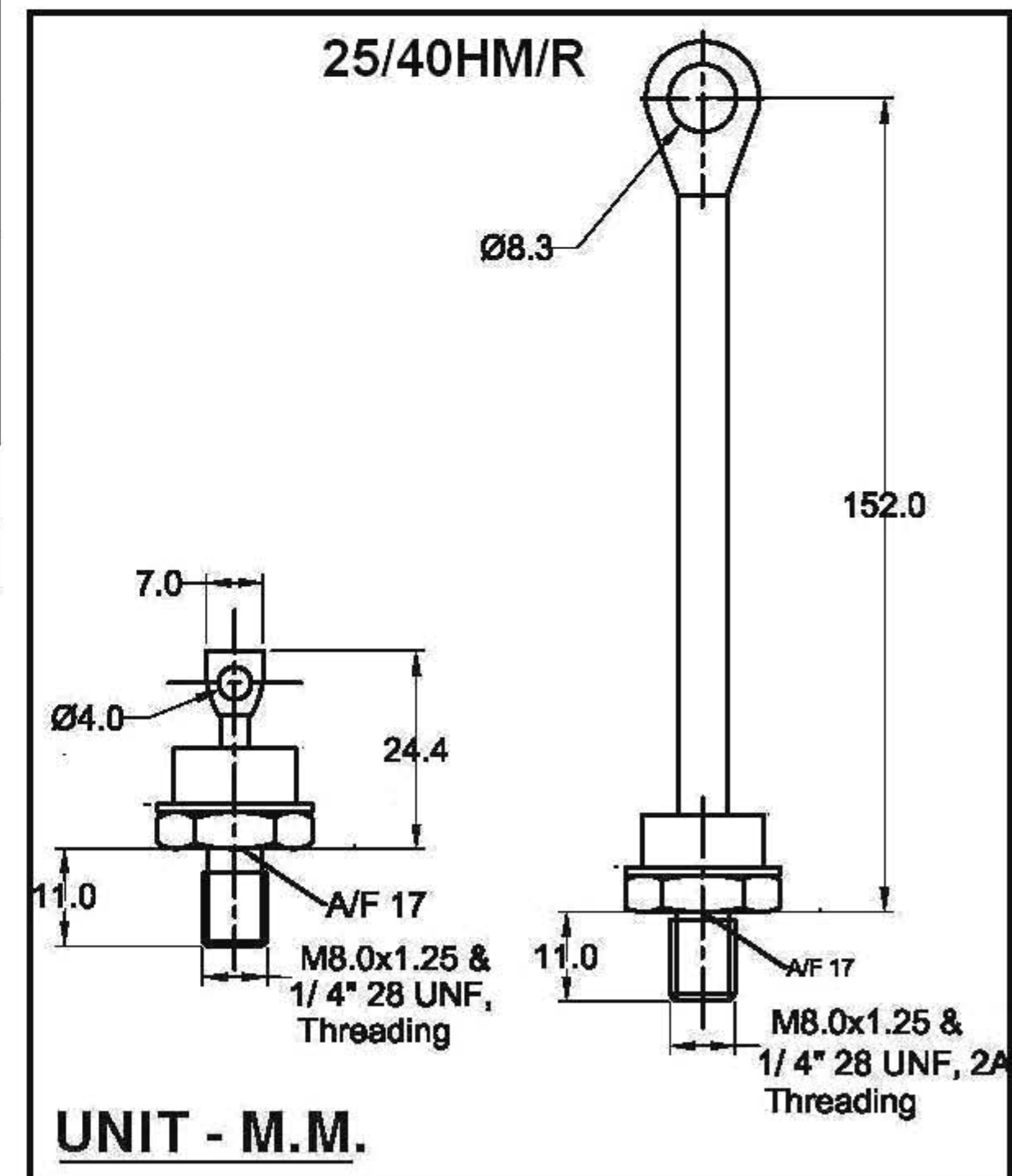
FEATURES

- € All 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		25A	40A
$I_{F(AV)}$	Maximum average forward current $T_c = 140^{\circ}\text{C}$	25 A	40A
V_{FM}	Maximum peak forward voltage drop @ Rated $I_{F(AV)}$	1.35 V	1.35V
I_{FSM}	Maximum peak one cycle (non-rep.) surge current 10 msec.	400 A	500A
I_{FRM}	Maximum repetitive peak forward current	150 A	200A
I^2t	Max. I^2t rating (non-rep.) 10 msec.	800 A ² Sec	1250A ² Sec
$V_{F(TO)}$	Max, value of threshold voltage	0.86V	0.69V
r_f	Max, value of forward slop resistance	3.0m Ω	3.7m Ω

THERMAL MECHANICAL SPECIFICATIONS

θ_{J-C}	Maximum thermal resistance junction to case	1.5 ^o C/W	1.0 ^o C/W
θ_{C-H}	Contact thermal resistance	0.5 ^o C/W	0.5 ^o C/W
T_J	Operating junction temp.	-65 ^o C to 175 ^o C	-65 ^o C to 175 ^o C
T_{stg}	Storage temperature	-65 ^o C to 175 ^o C	-65 ^o C to 175 ^o C
	Mounting torque (Non-lubricated threads)	0.4 M-Kg min. 0.6 M-Kg max.	0.4 M-Kg min. 0.6 M-Kg max.
W	Approx. weight	30 gms.	30gms.



AVALANCHE RATING : Avalanche versions available with 100,120,140 the reverse power rating only, to specify add prefix 'A' e.g. A 25 HMR120 etc.

N. B. : All other Parameters are the same as 25 H

		A 25 H	A 40 H	UNITS	CONDITIONS
P_R	Maximum non-repitive peak reverse power	10	11	KW	10 uS Square pulse

ELECTRICAL RATINGS

TYPE	NUMBER	25/40 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_{RM}	Max. Peak reverse leakage current @ $V_{RRM}, T_j = 160^{\circ}\text{C}$ (mA)		5	5	5	5	5	5	5

SILICON RECTIFIERS

ORDER INFORMATION TABLE

25/40 H	M/F	R	40	G	M6
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① ② ③ ④ ⑤ ⑥

- ① - 25/40 H - without external lead
26/41 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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