



RUTTONSHA

Ruttonsha International Rectifier Ltd.

SILICON RECTIFIERS

100 Ampere Silicon Power Diodes

FEATURES

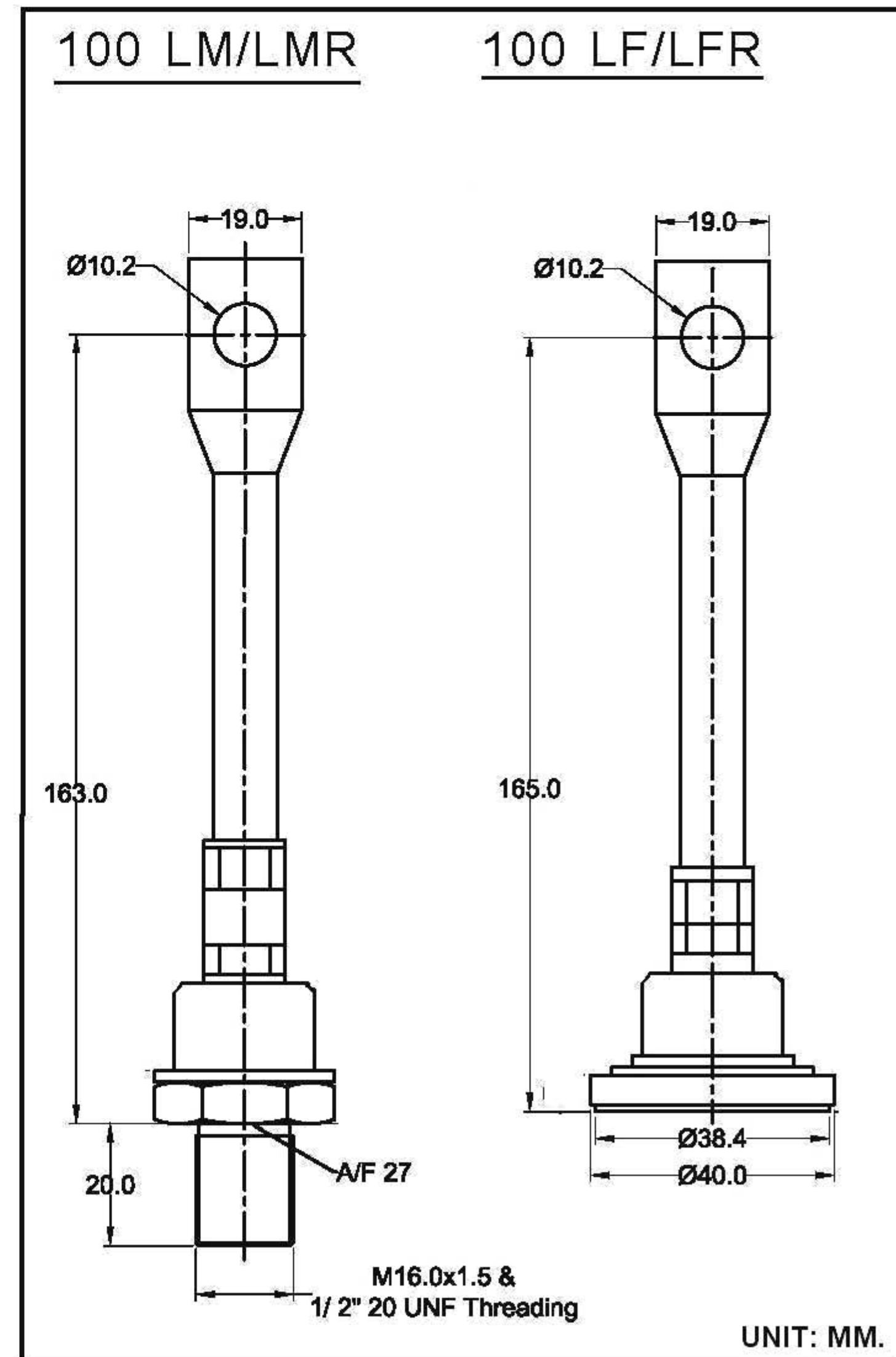
- ❖ Diffused series.
- ❖ Available in normal & reverse polarity.
- ❖ Device conforms to IS 3700 (III) & IS 4400 (III).
- ❖ Device outline conforms to IS 5000 (Do. 6).

ELECTRICAL SPECIFICATIONS

$I_{F(AV)}$	Maximum average forward current $T_c = 130^\circ\text{C}$	100 A
V_{FM}	Maximum peak forward voltage drop @ Rated $I_{F(peak)}$	1.4 V
I_{FSM}	Maximum peak one cycle (non-rep.) surge current 10 msec.	2300 A
I_{FRM}	Maximum repetitive peak forward current	500 A
I^2t	Max. I^2t rating (non-rep.) 10 msec.	26450 A ² Sec
$V_{F(TO)}$	Max, value of threshold voltage	0.76 V
r_f	Max, value of forward slop resistance	1.41 m Ω

THERMAL MECHANICAL SPECIFICATIONS

θ_{J-C}	Maximum thermal resistance junction to case	0.40 ^o C/W
θ_{C-H}	Contact thermal resistance	100LM/LMR 0.1 ^o C/W 100LF/LFR 0.07 ^o C/W
T_J	Operating junction temp.	-40 ^o C to 175 ^o C
T_{stg}	Storage temperature	-40 ^o C to 175 ^o C
	Mounting torque (Non-lubricated threads)	2.0 M-Kg min. 3.0 M-Kg max.
W	Approx. weight	150 gms.



ELECTRICAL RATINGS

TYPE NUMBER	100 LM/LMR 100 LF/LFR	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. Average reverse leakage current @ $V_{RRM} T_c$ (mA)	15	15	15	15	15	15	15

SILICON RECTIFIERS

ORDER INFORMATION TABLE

100 L	M/F	R	40
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① ② ③ ④

- ① - 100 L - Essential Part no.
- ② - None - Stud with 1/2" UNF.2A Threading
3/8"-24UNF 2A Thread
M - Stud with M16 x 1.5P Metric Threading
F - Round flat base
- ③ - None - Normal polarity
R - Reverse polarity
- ④ - Voltage Rating (See table)

SILICON RECTIFIERS

100LM/LMR & 100LF/LFR

