



Ruttonsha International Rectifier Ltd.

SILICON RECTIFIERS

25 Ampere Silicon Power Diodes

FEATURES

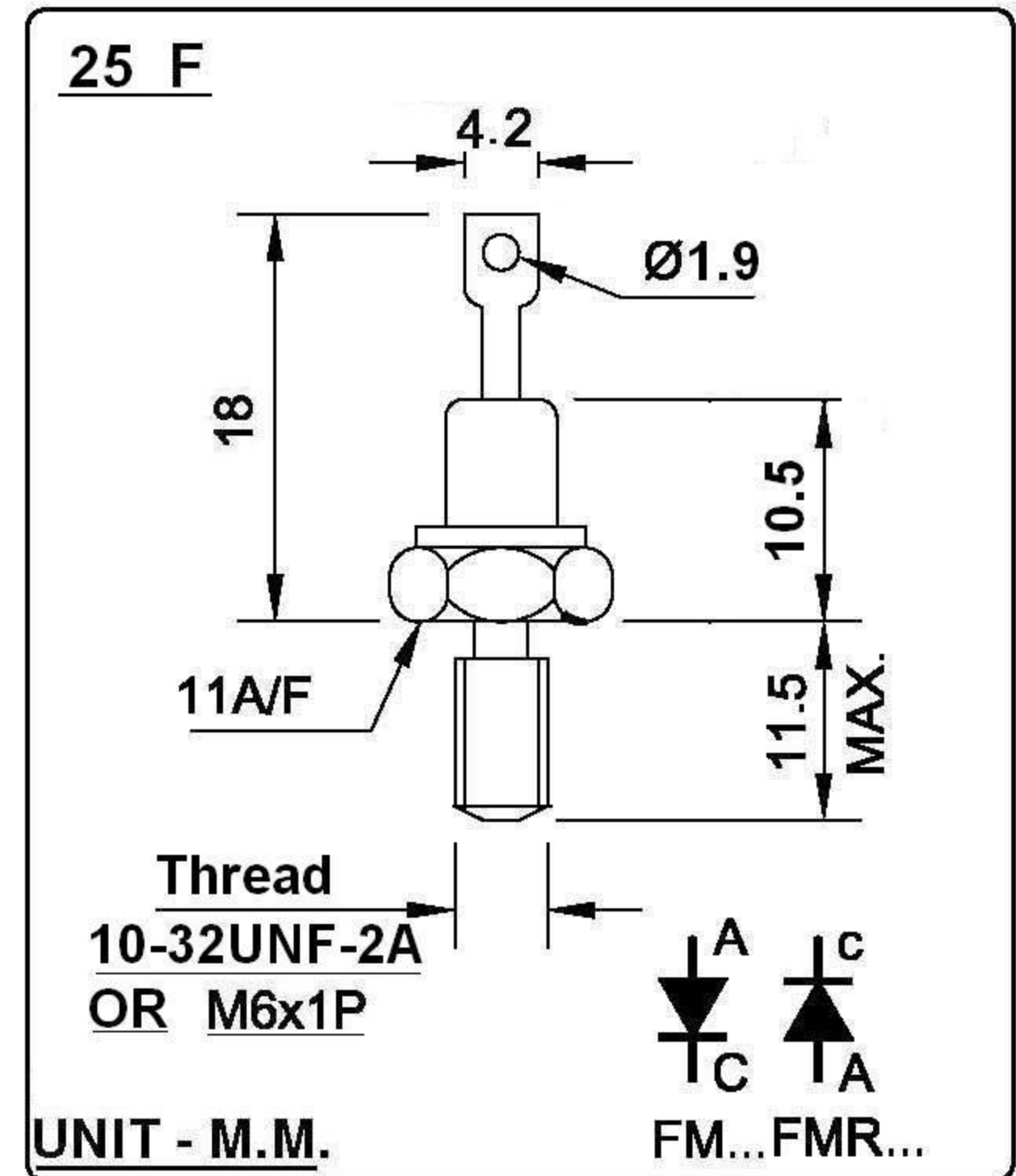
- ❖ All diffused series.
- ❖ Available in normal & reverse polarity.
- ❖ Available in avalanche characteristic.

ELECTRICAL SPECIFICATIONS

$I_{F(AV)}$	Maximum average forward current $T_c = 120^\circ\text{C}$	25 A
V_{FM}	Maximum peak forward voltage drop @ Rated $I_{F(peak)}$	1.3 V
I_{FSM}	Maximum peak one cycle (non-rep.) surge current 10 msec No V_{RRM} Reapplied	356 A
I_{FRM}	Maximum repetitive peak forward current	150 A
I^2t	Max. I^2t rating (non-rep.) for 5 to 10 msec.	636 A ² Sec

THERMAL MECHANICAL SPECIFICATIONS

θ_{J-C}	Maximum thermal resistance junction to case. D.C. Operation	150 ^o C/W
θ_{C-H}	Contact thermal resistance	0.5 ^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)	0.14 M-Kg min. 0.17 M-Kg max.
W	Approx. weight	7 gms.

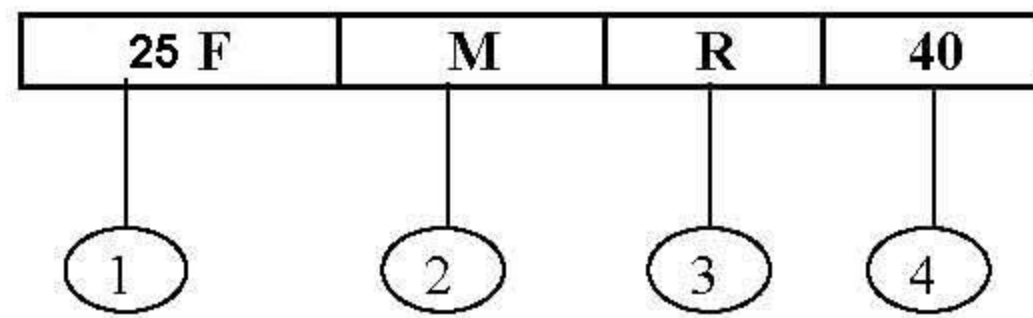


ELECTRICAL RATINGS

TYPE	NUMBER	25 FM/FMR	10	20	40	60	80	100	120	140	160
V_{RRM}	Max. repetitive peak reverse voltage (V)		100	200	400	600	800	1000	1200	1400	1600
V_{RSM}	Max. non-repetitive peak reverse voltage (V)		200	400	600	800	1000	1200	1400	1600	1800
$V_{R(RMS)}$	Max. R.M.S. reverse voltage (V)		70	140	280	420	560	700	840	980	1120
V_R	Max. D.C. Blocking voltage (V)		100	200	400	600	800	1000	1200	1400	1600
	Recommended R.M.S. working voltage (V)		40	80	160	240	320	400	480	560	640
$I_{R(AV)}$	Max. average reverse leakage current @ V_{RRM}, T_c (mA)		8	8	8	5	5	5	4	4	4

SILICON RECTIFIERS

Order Information Table



- | | | | | |
|---|---|--------|---|--------------------------------|
| 1 | - | 25F | - | Essential Part No. |
| 2 | - | M - | | Stud with 6mm Metric threading |
| | | None - | | Stud with 10-32 UNF threading |
| 3 | - | None- | | Normal polarity |
| | | R - | | Reverse polarity |
| 4 | - | | | Voltage Rating (See table) |

Silicon Rectifiers

25F SERIES

Fig.1 CURRENT RATINGS CHARACTERISTICS

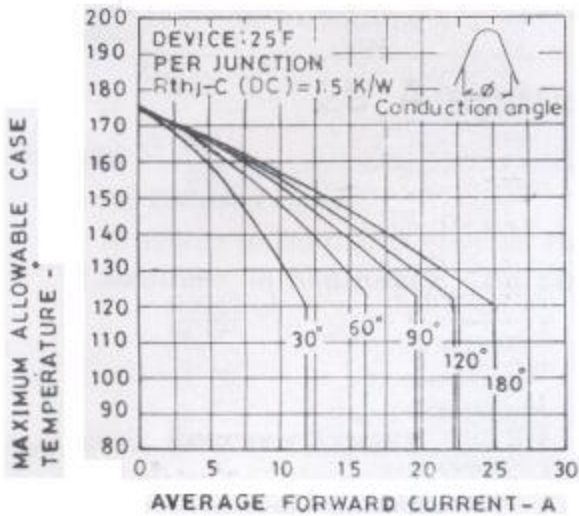


Fig.2 FORWARD VOLTAGE DROP CHARACTERISTICS

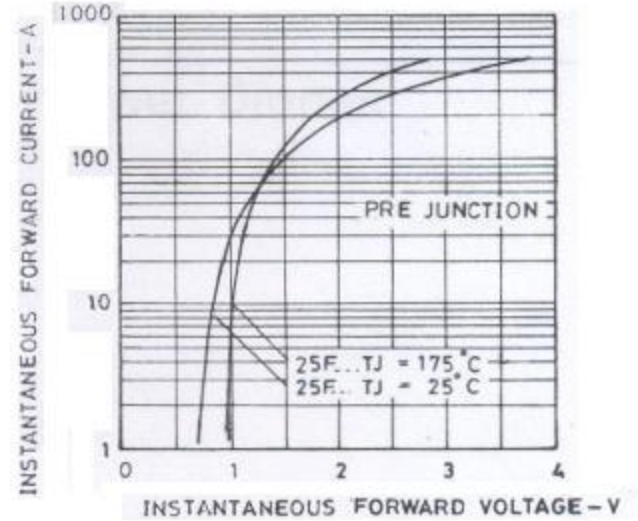


Fig.3 MAXIMUM NON REPETITIVE SURGE CURRENT

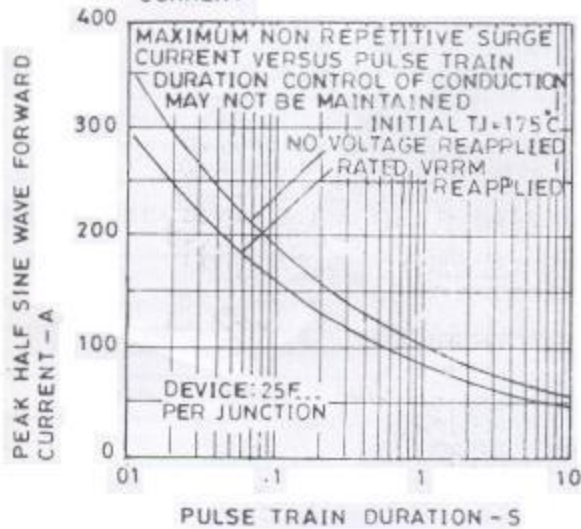


Fig.4 THERMAL IMPEDANCE Z_{thjc} CHARACTERISTICS

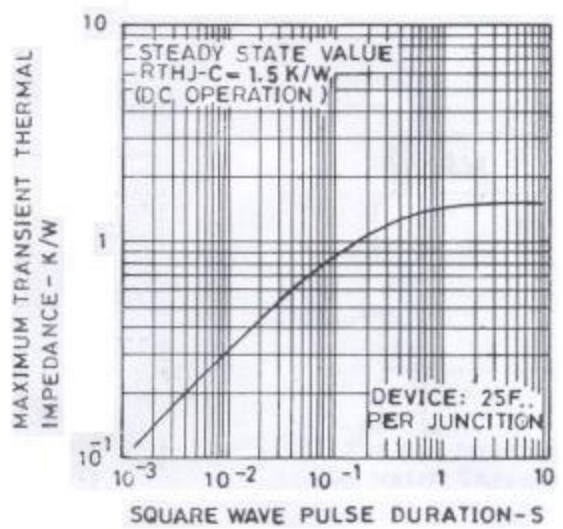


Fig.5 FORWARD POWER LOSS CHARACTERISTICS

