

Silicon Rectifiers

25 Ampere Silicon Power Diodes

FEATURES

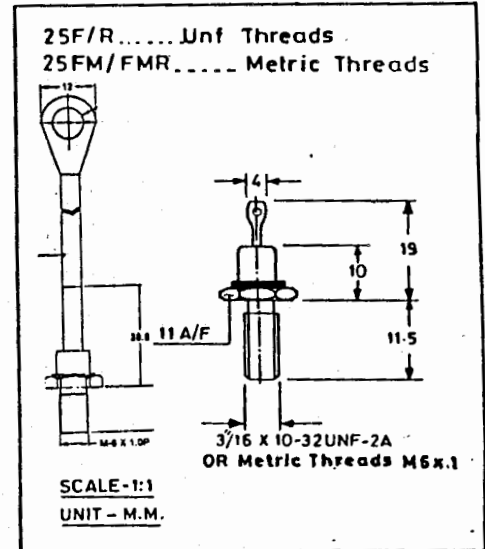
- * All Diffused Series
- * Available in Normal & Reverse Polarity
- * Available in Avalanche Characteristics

ELECTRICAL SPECIFICATIONS

$I_{F(AV)}$	Maximum Average Forward Current $T_c = 120^\circ\text{C}$	25A
V_{FM}	Maximum Peak forward voltage drop @ Rated $I_{F(AV)}$	1.30 V
I_{FSM}	Maximum peak one cycle (non-rep.) surge current 10 msec. NO V_{RRM} Reapplied	356 A
I_{FRM}	Maximum peak repetitive surge current	150 A
I^2t	Max I^2t rating (non-rep.) for 5 to 10 msec	636A ² Sec

THERMAL MECHANICAL SPECIFICATIONS

θ_{JC}	Maximum thermal resistance Junction to case DC Operation	1.50° C/W
θ_{CH}	Contact thermal resistance	0.5° C/W
T_j	Operating Junction Temp.	-40°C to 175°C
T_{stg}	Storage temperature.	-40°C to 175°C
	Mounting torque (Non-lubricated threads)	0.14 M-Kg min. 0.17 M-Kg max.
W	Approx. weight	7 gms.



AVALANCHE RATING :- Avalanche versions available with the following reverse power rating, to specify add prefix 'A' e.g. A25 FM/FMR120 etc.
N.B. :- All other Parameters are the same as 25F

		A 25 F	UNITS	CONDITIONS
P_R	Maximum Non-repetitive peak reverse power	10	KW	10 μs Square pulse

ELECTRICAL RATINGS

TYPE	NUMBER	25FM/FMR	10	20	40	60	80	100	120	140	160
V_{RRM}	Max non-repetitive peak reverse voltage (V)		200	300	600	800	1000	1200	1400	1600	1800
V_{RRM}	Max. repetitive peak reverse voltage (V)		100	200	400	600	800	1000	1200	1400	1600
$V_{RRM(RMS)}$	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_{RAV}	Max. Average reverse leakage current @ V_{RRM} T_c (mA)		8	8	8	5	5	5	4	4	4

— : 25FM/FMR SERIES : —

Fig.1 CURRENT RATINGS CHARACTERISTICS

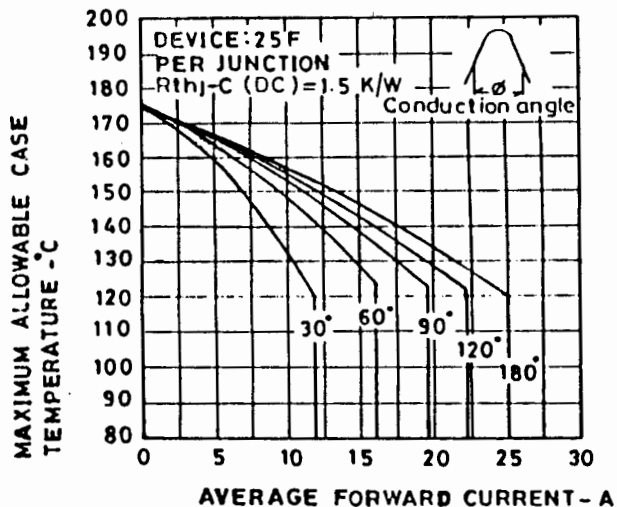


Fig.2 FORWARD VOLTAGE DROP CHARACTERISTICS

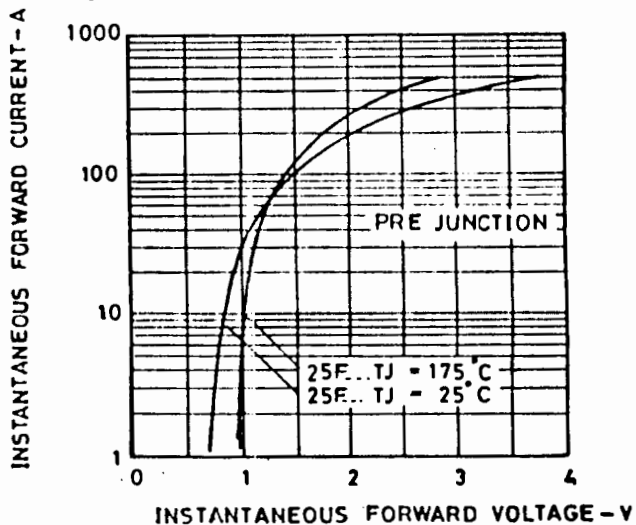


Fig 3 MAXIMUM NON REPETITIVE SURGE CURRENT

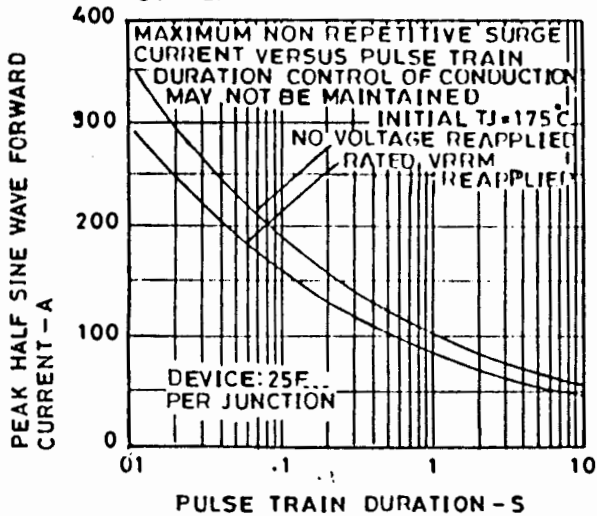


Fig 4 THERMAL IMPEDANCE Z_{thj-c} CHARACTERISTICS

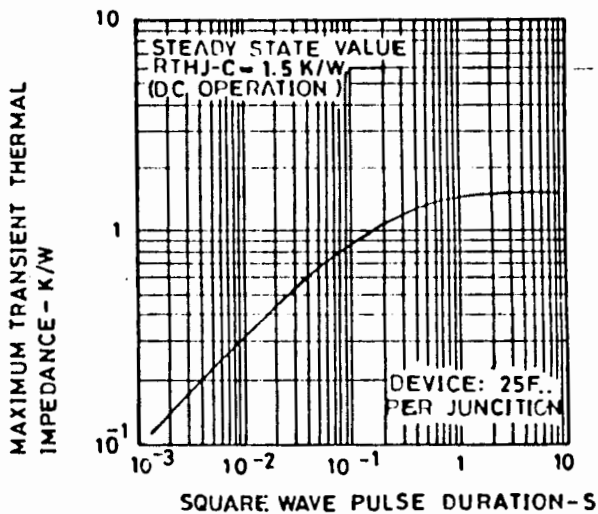


Fig.5 FORWARD POWER LOSS CHARACTERISTICS

