

SILICON RECTIFIERS

12 & 16 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. 4) except stud.
- ❖ Available in avalanche characteristic.

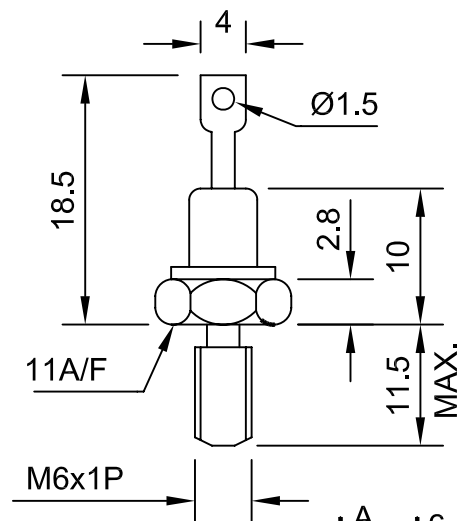
ELECTRICAL SPECIFICATIONS

		12 FM/FMR	16 FM/FMR
$I_{F(AV)}$	Maximum average forward current $T_c = 160^\circ\text{C}$	12A	16A
V_{FM}	Maximum peak forward voltage drop @ Rated $I_{F(peak)}$	1.3 V	1.2 V
I_{FSM}	Maximum peak one cycle (non-rep.) surge current 10 msec	265 A	350 A
I_{FRM}	Maximum repetitive peak forward current	60 A	80 A
I^2t	Max. I^2t rating (non-rep.) for 10 msec.	351 A ² Sec	612 A ² Sec

THERMAL MECHANICAL SPECIFICATIONS

θ_{J-C}	Maximum thermal resistance junction to case	2° C/W	1.6° C/W
θ_{C-H}	Contact thermal resistance	0.5° C/W	
T_J	Operating junction temp.	-65°C to 175°C	
T_{stg}	Storage temperature	-65°C to 200°C	
	Mounting torque (Non-lubricated threads)	0.14 M-Kg min. 0.17 M-Kg max.	
W	Approx. weight	7 gms.	

12/16 FM / FMR



UNIT - M.M.

A
C
C
A
FM...FMR...

ELECTRICAL RATINGS

TYPE	NUMBER	12 FM/FMR 16 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)		150	300	500	700	900	1100	1300	1500	1700
$V_{R(RMS)}$	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_{RM}	Max. Peak reverse leakage current @ V_{RRM}, T_c (mA)		1	1	1	1	1	1	1	1	1

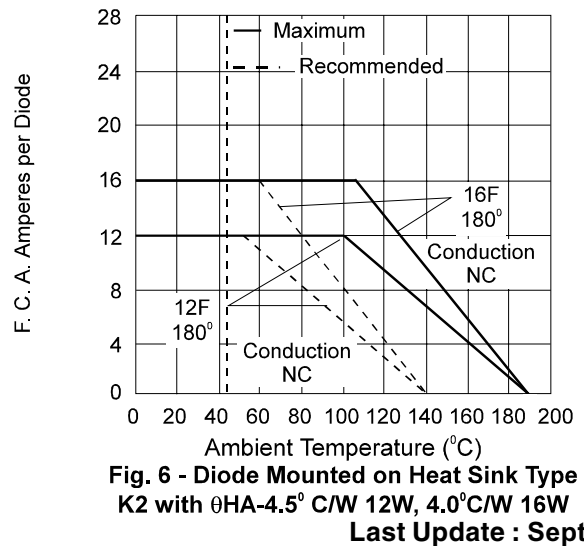
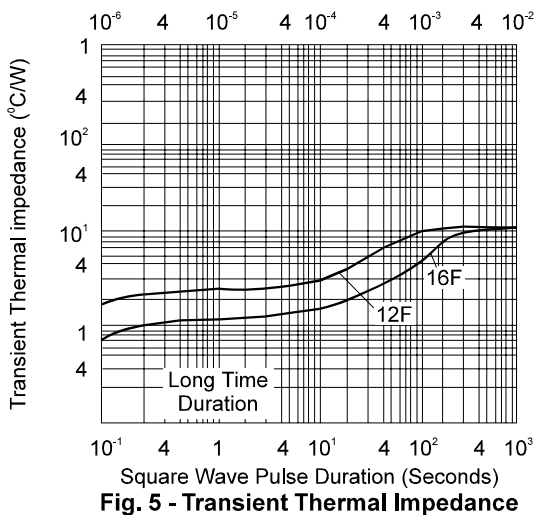
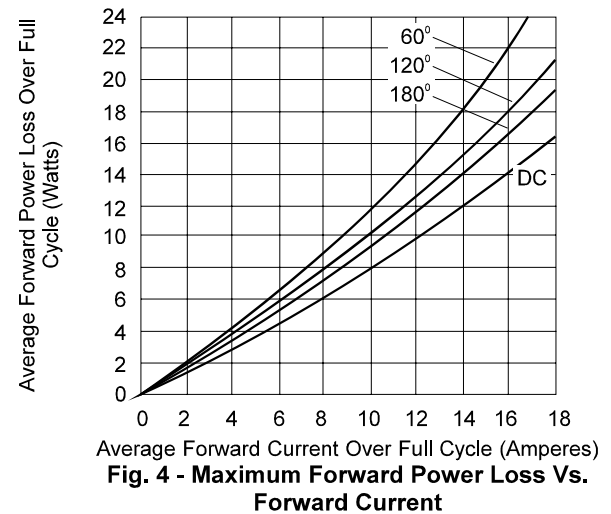
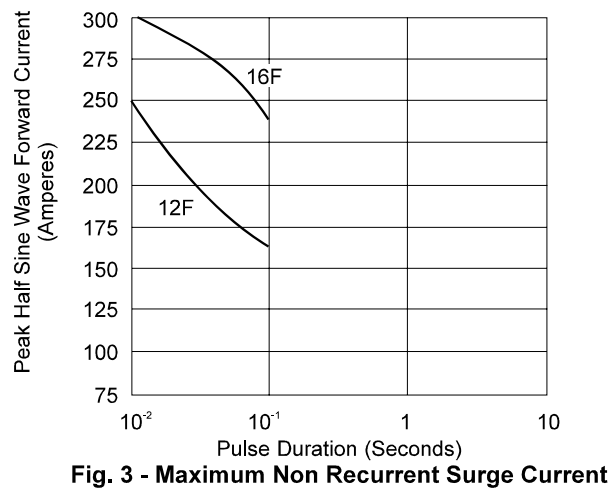
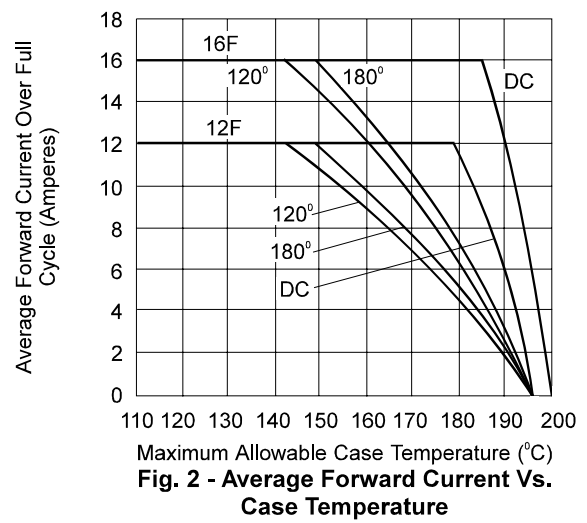
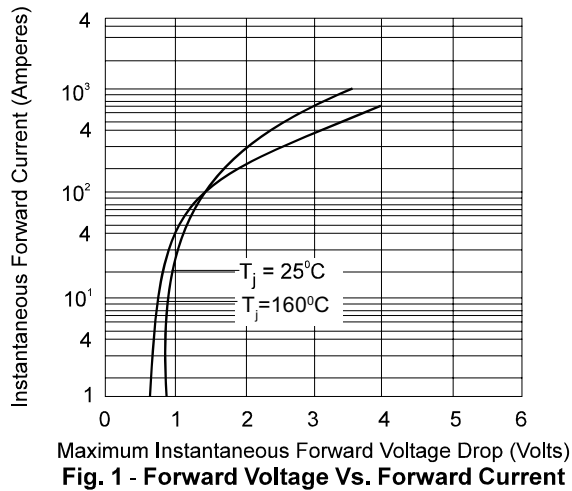
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Order Information Table

12/16 F	M	R	40
1	2	3	4
1	-	12/16F -	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)	

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12 FM / FMR & 16 FM / FMR SERIES



Last Update : Sept. 2007