NOT RECOMMENDED FOR NEW DESIGNS

Micro Commercial Components

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FR6J

6 Amp Fast Recovery Rectifier 600 Volts

Features

- Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)
- Fast Switching Speed For High Efficiency
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking : Cathode band and type number
- Halogen free available upon request by adding suffix "-HF"

Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
FR6J	600V	420V	600V

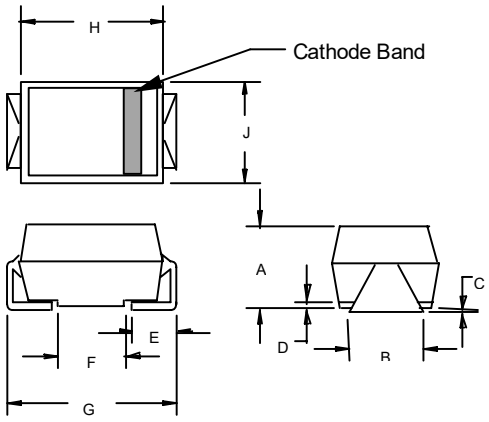
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	6 A	T_A = 55°C
Peak Forward Surge Current	I_{FSM}	300A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F	1.30V	I_{FM} = 6.0A; T_A = 25°C*
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	10µA 50µA	T_A = 25°C T_A = 55°C
Maximum Reverse Recovery Time FR6J	T_{rr}	250ns	I_F=0.5A, I_R=1.0A, I_{rr}=0.25A

*Pulse Test: Pulse Width 300µsec, Duty Cycle 1%

Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.

DO-214AB
(HSMC) (Round Lead)



DIM	INCHES MIN	INCHES MAX	MM MIN	MM MAX	NOTE
A	.200	.214	5.08	5.43	
B	.177	.203	4.70	5.30	
C	.002	.005	.05	.13	
D	---	.02	---	.51	
E	.047	.056	1.20	1.42	
F	.168	.179	4.27	4.55	
G	.309	.322	7.85	8.18	
H	.239	.243	6.08	6.18	
J	.234	.240	5.95	6.10	

SUGGESTED SOLDER PAD LAYOUT

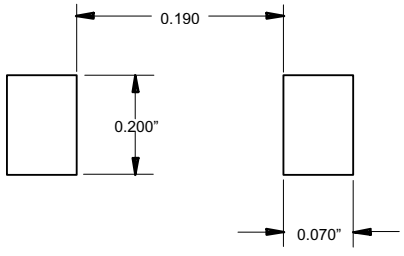
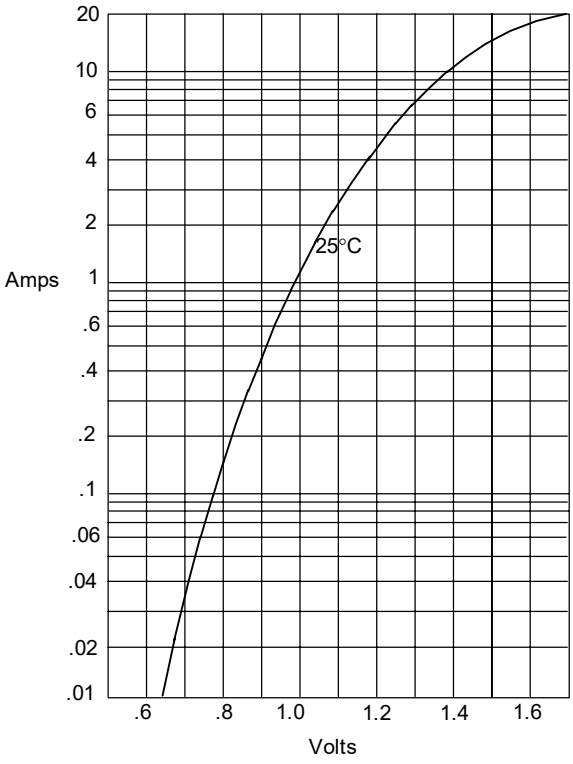


Figure 1
Typical Forward Characteristics



Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve

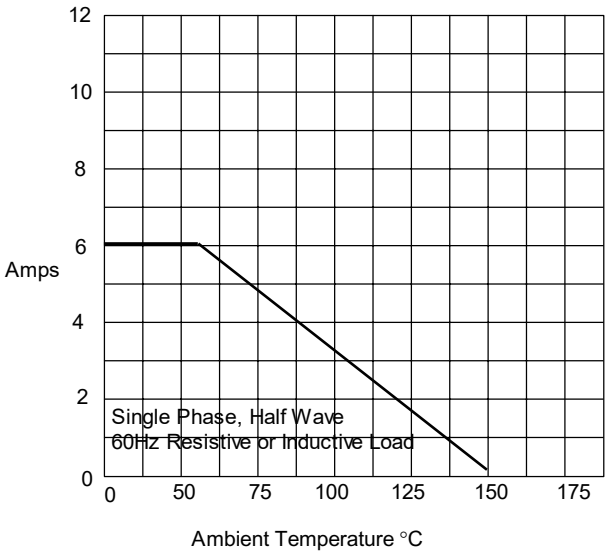
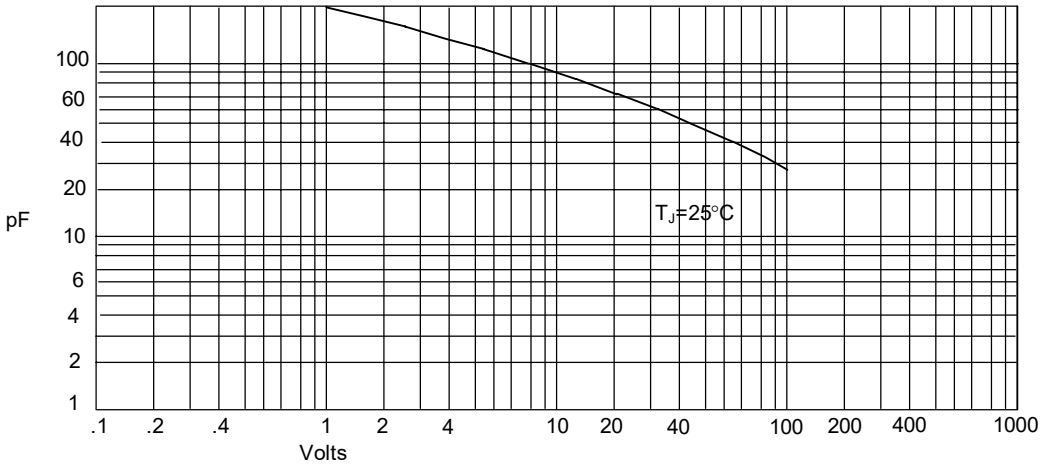
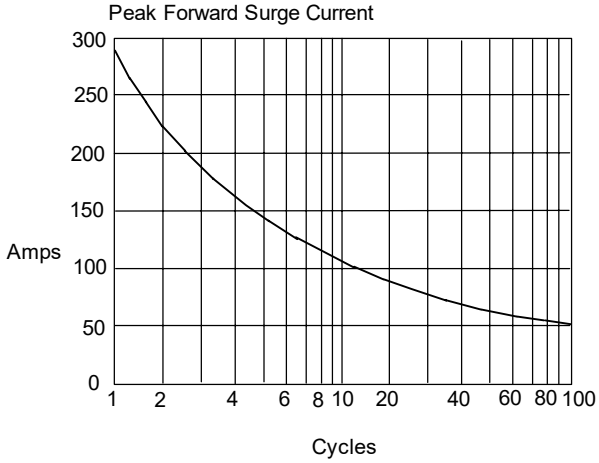


Figure 3
Junction Capacitance



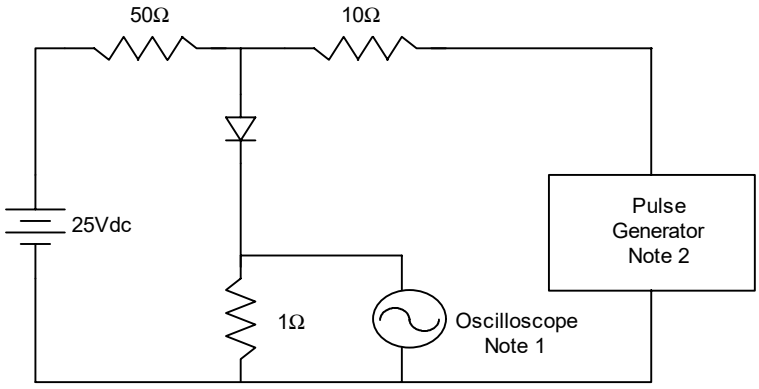
Junction Capacitance - pF *versus*
Reverse Voltage - Volts

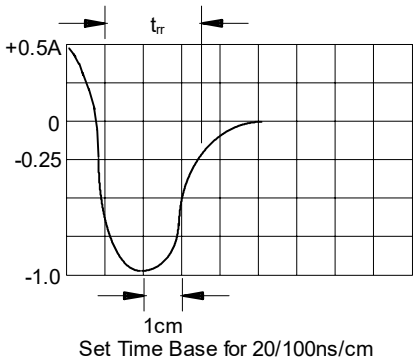
Figure 4
Peak Forward Surge Current



Peak Forward Surge Current - Amperes *versus*
Number Of Cycles At 60Hz - Cycles

Figure 5
Reverse Recovery Time Characteristic And Test Circuit Diagram





Set Time Base for 20/100ns/cm

Notes:
1. Rise Time = 7ns max.
Input impedance = 1 megohm, 22pF
2. Rise Time = 10ns max.
Source impedance = 50 ohms
3. Resistors are non-inductive

Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 1.5Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF