



Micro Commercial Components



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 20736 Marilla Street Chatsworth
 CA 91311
 Phone: (818) 701-4933
 Fax: (818) 701-4939

FR6J

6 Amp Fast Recovery Rectifier 600 Volts

Features

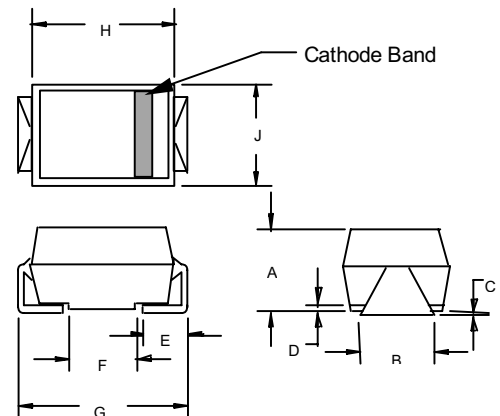
- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- Fast Switching Speed For High Efficiency
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking : Cathode band and type number

Maximum Ratings

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

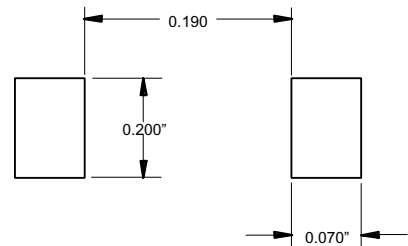
| MCC Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|--|---------------------|-----------------------------|
| FR6J | 600V | 420V | 600V |

DO-214AB (HSMC) (Round Lead)



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|------|------|------|------|
| | INCHES | | MM | | |
| 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



Electrical Characteristics @ 25°C Unless Otherwise Specified

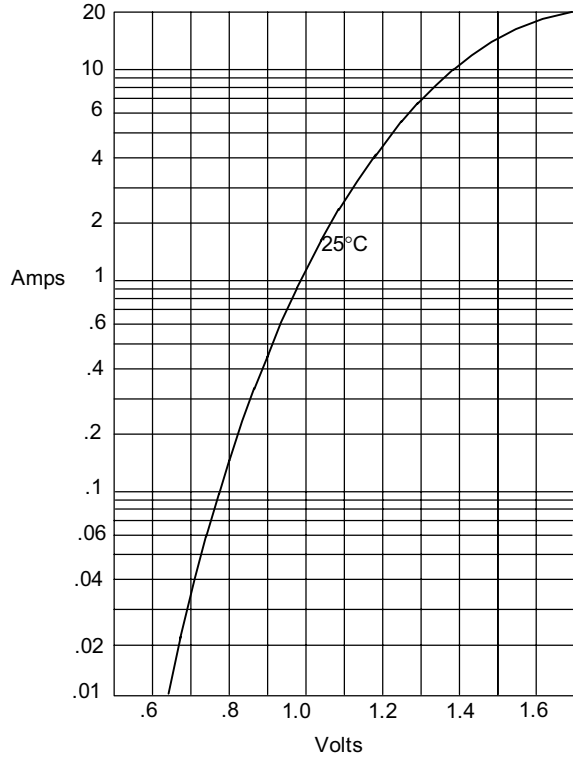
| | | | |
|---|-------------|--------------|--|
| Average Forward Current | $I_{F(AV)}$ | 6 A | $T_A = 55^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 300A | 8.3ms, half sine |
| Maximum Instantaneous Forward Voltage | V_F | 1.30V | $I_{FM} = 6.0A$; $T_A = 25^\circ\text{C}^*$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 10µA 50µA | $T_A = 25^\circ\text{C}$ $T_A = 55^\circ\text{C}$ |
| Maximum Reverse Recovery Time | 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.

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Figure 1
Typical Forward Characteristics



Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve

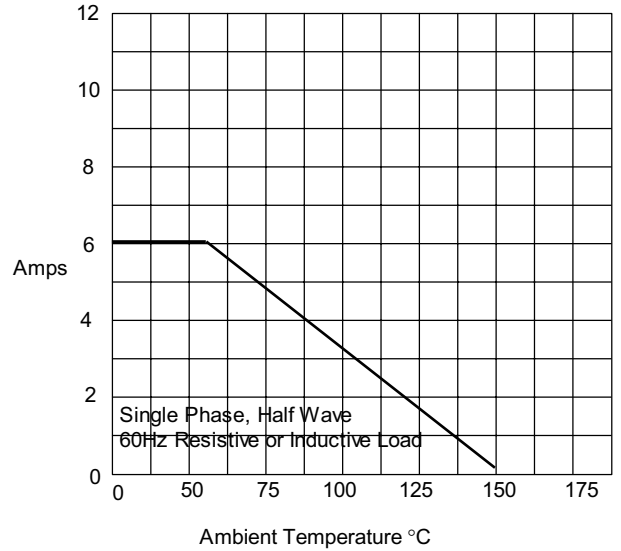
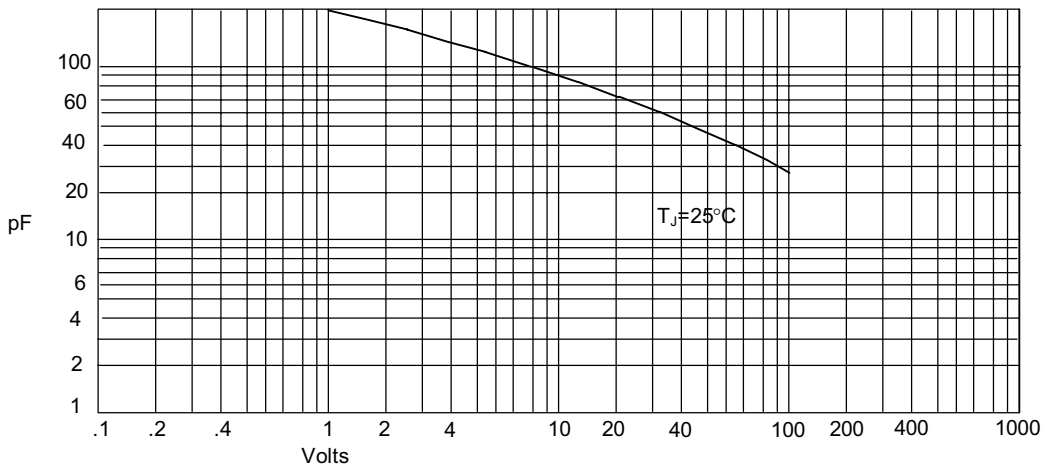


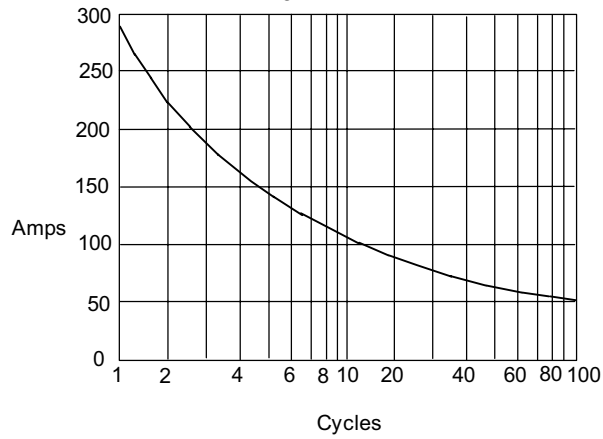
Figure 3
Junction Capacitance



Junction Capacitance - pF versus
Reverse Voltage - Volts

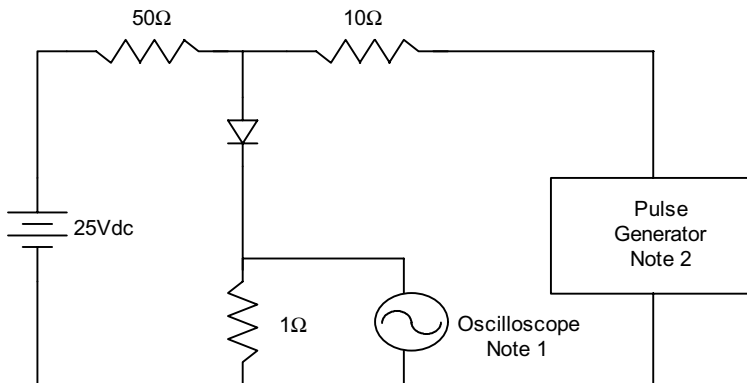
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Figure 4
Peak Forward Surge Current

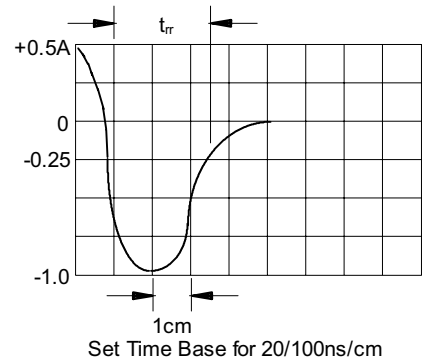


Peak Forward Surge Current - Amperes versus
Number Of Cycles At 60Hz - Cycles

Figure 5
Reverse Recovery Time Characteristic And Test Circuit Diagram



- 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 |

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