

**Pb Free Plating Product**

FMX21S/FMX22S/FMX23S/FMX24S/FMX25S/FMX26S



10 Amperes Insulated Dual Common Cathode Ultra Fast Recovery Half Bridge Rectifiers

**Features**

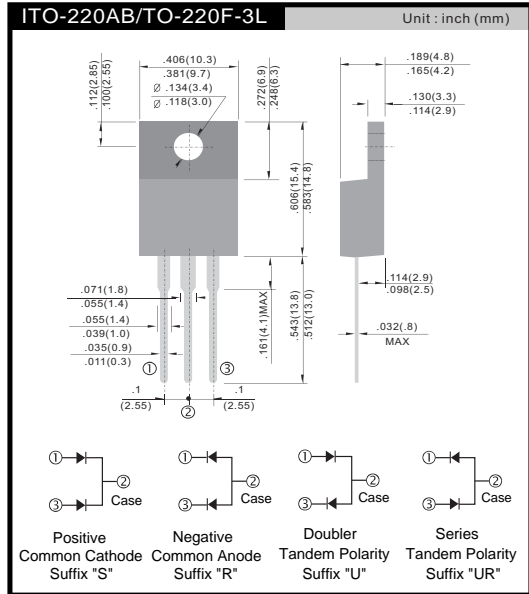
- \* Fast switching for high efficiency
- \* Low forward voltage drop
- \* High current capability
- \* Low reverse leakage current
- \* High surge current capability

**Application**

- \* Automotive Inverters and Solar Inverters
- \* Plating Power Supply, SMPS and UPS
- \* Car Audio Amplifiers and Sound Device Systems

**Mechanical Data**

- \* Case: ITO-220AB full plastic isolated package
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solderable per MIL-STD-202 method 208
- \* Polarity: As marked on diode body
- \* Mounting position: Any
- \* Weight: 1.75 gram approximately



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

|  | SYMBOL                            | FMX21S<br>FMX22S | FMX23S<br>FMX24S | FMX25S<br>FMX26S | UNIT     |
|--|-----------------------------------|------------------|------------------|------------------|----------|
| Maximum Recurrent Peak Reverse Voltage   | VRRM                              | 200              | 400              | 600              | V        |
| Maximum RMS Voltage  | VRMS                              | 140              | 280              | 420              | V        |
| Maximum DC Blocking Voltage  | VDC                               | 200              | 400              | 600              | V        |
| Maximum Average Forward Rectified Current T <sub>C</sub> =100°C (Total Device 2*5A=10A)                | I <sub>F(AV)</sub>                | 10.0             |                  |                  | A        |
| Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)      | I <sub>FSM</sub>                  | 100              |                  |                  | A        |
| Maximum Instantaneous Forward Voltage @ 5.0 A (Both Diode/Per Diode/Per Leg)                           | V <sub>F</sub>                    | 0.98             | 1.3              | 1.7              | V        |
| Maximum DC Reverse Current @ T <sub>J</sub> =25°C At Rated DC Blocking Voltage @ T <sub>J</sub> =125°C | I <sub>R</sub>                    | 5.0<br>100       |                  |                  | μA<br>μA |
| Maximum Reverse Recovery Time (Note 1)   | T <sub>rr</sub>                   | 35               |                  |                  | nS       |
| Typical junction Capacitance (Note 2)  | C <sub>J</sub>                    | 65               |                  |                  | pF       |
| Typical Thermal Resistance (Note 3)  | R <sub>θJC</sub>                  | 3.0              |                  |                  | °C/W     |
| Operating Junction and Storage Temperature Range   | T <sub>J</sub> , T <sub>STG</sub> | -55 to +150      |                  |                  | °C       |

NOTES : (1) Reverse recovery test conditions I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>rr</sub> = 0.25A.  
 (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.  
 (3) Thermal Resistance junction to case.

FIG.1 - FORWARD CURRENT DERATING CURVE

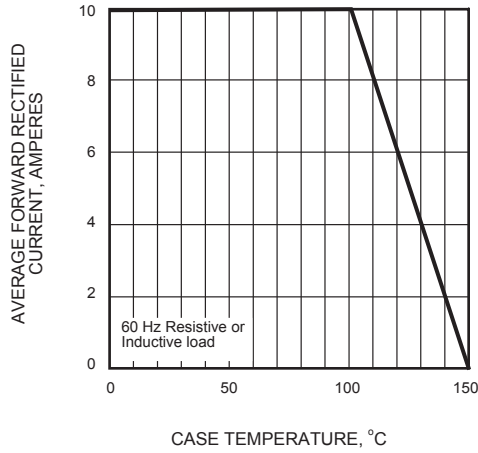


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

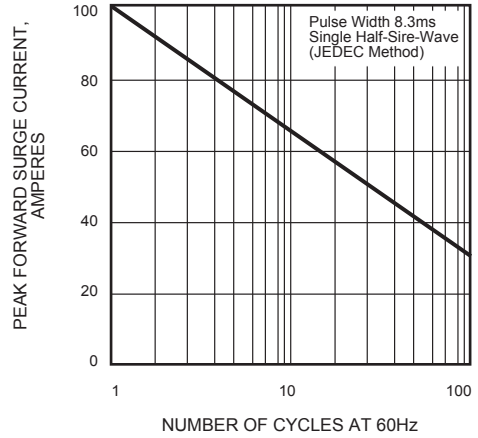


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

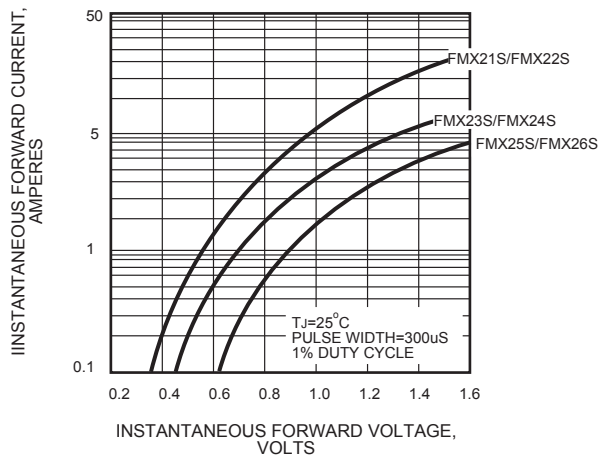


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

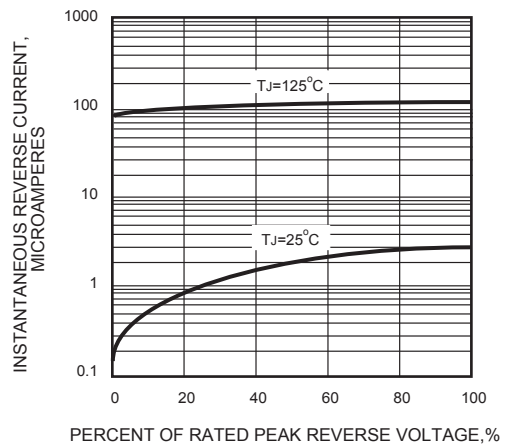


FIG.5 - TYPICAL JUNCTION CAPACITANCE

