

Pb Free Plating Product

FMX22S/FMX23S/FMX24S/FMX26S



10 Ampere Insulated Common Cathode Fast Recovery Half Bridge Rectifiers

## Features

- ★ Latest GPP technology with super fast recovery time
- ★ Low forward voltage drop
- ★ High current capability
- ★ Low reverse leakage current
- ★ High surge current capability

## Application

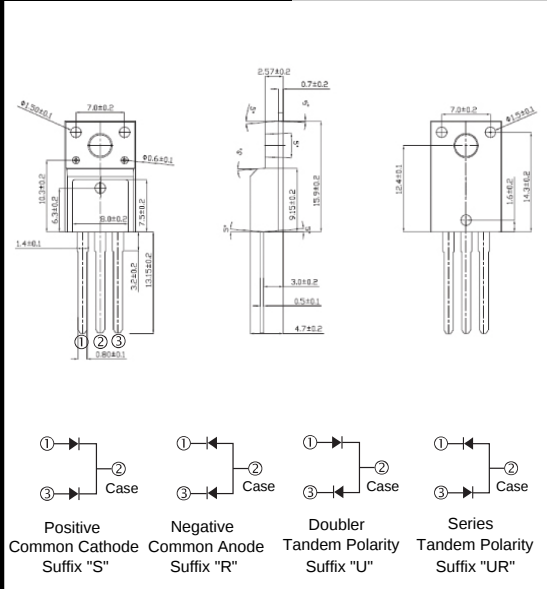
- ★ Automotive Inverters and Solar Inverters
- ★ Plating Power Supply, SMPS, EPS and UPS
- ★ Car Audio Amplifiers and Sound Device Systems

## Mechanical Data

- ★ Case: Fully Isolated Molding TO-220FP
- ★ 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: 2.0 gram approximately

## ITO-220AB

Unit:mm



## 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          | FMX22S      | FMX23S<br>FMX24S | FMX26S | UNIT               |
|-----------------------------------------------------------------------------------------------------|-----------------|-------------|------------------|--------|--------------------|
| Maximum Recurrent Peak Reverse Voltage                                                              | $V_{RRM}$       | 200         | 400              | 600    | V                  |
| Maximum RMS Voltage                                                                                 | $V_{RMS}$       | 140         | 280              | 420    | V                  |
| Maximum DC Blocking Voltage                                                                         | $V_{DC}$        | 200         | 400              | 600    | V                  |
| Maximum Average Forward Rectified Current $T_C=100^{\circ}C$                                        | $I_{F(AV)}$     | 10.0        |                  |        | A                  |
| Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)   | $I_{FSM}$       | 100         |                  |        | A                  |
| Maximum Instantaneous Forward Voltage @ 5.0 A                                                       | $V_F$           | 0.98        | 1.3              | 1.7    | V                  |
| Maximum DC Reverse Current @ $T_J=25^{\circ}C$<br>At Rated DC Blocking Voltage @ $T_J=125^{\circ}C$ | $I_R$           | 5.0<br>100  |                  |        | $\mu A$<br>$\mu A$ |
| Maximum Reverse Recovery Time (Note 1)                                                              | $T_{rr}$        | 35          |                  |        | nS                 |
| Typical junction Capacitance (Note 2)                                                               | $C_J$           | 65          |                  |        | pF                 |
| Typical Thermal Resistance (Note 3)                                                                 | $R_{\theta JC}$ | 2.2         |                  |        | $^{\circ}C/W$      |
| Operating Junction and Storage Temperature Range                                                    | $T_J, T_{STG}$  | -55 to +150 |                  |        | $^{\circ}C$        |

NOTES : (1) Reverse recovery test conditions  $I_F = 0.5A$ ,  $I_R = 1.0A$ ,  $I_{rr} = 0.25A$ .  
 (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

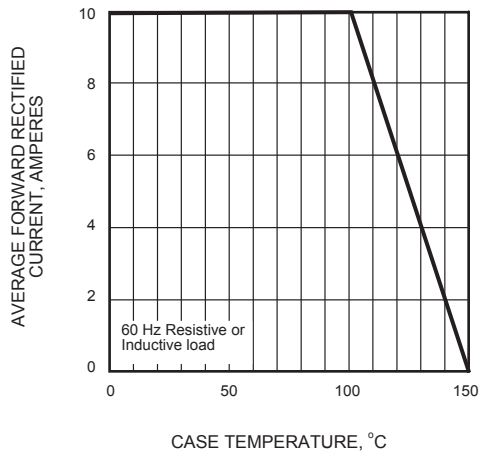


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

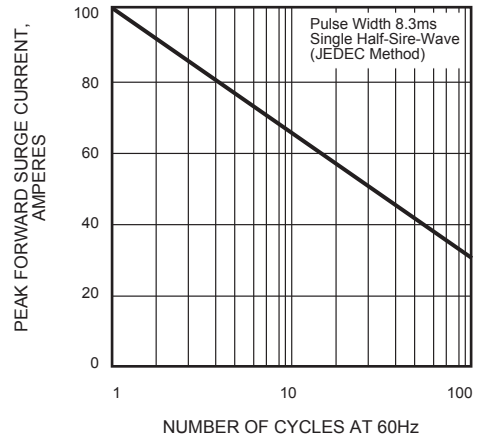


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

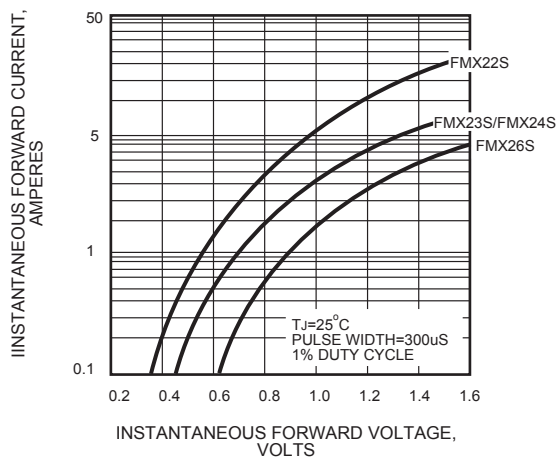


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

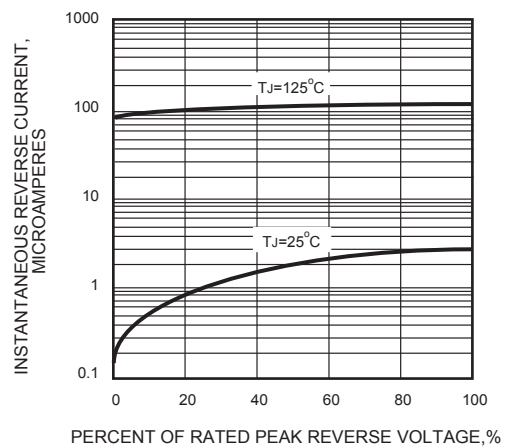


FIG.5 - TYPICAL JUNCTION CAPACITANCE

