

Pb Free Plating Product

## FMU32S thru FMU36S



20.0 Ampere SwitchMode Common Cathode Fast Recovery Rectifiers

### Features

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

### Application

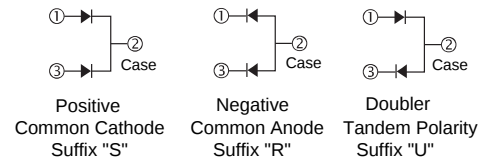
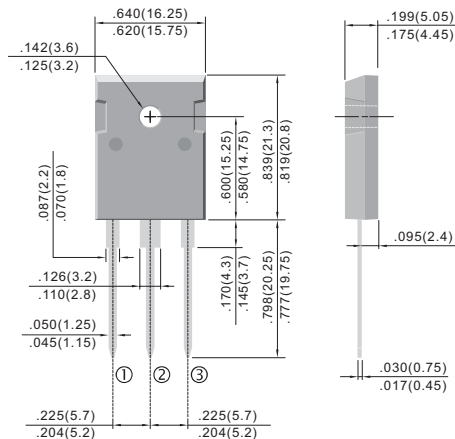
- ★ Automotive Inverters/Solar Inverters
- ★ Plating Power Supply, SMPS and UPS
- ★ Car Audio Amplifiers and Sound Device Systems

### Mechanical Data

- ★ Case: TO-247AD/TO-3P
- ★ 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: 5.6 gram approximately

### TO-3P/TO-247AD

Unit : inch (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   | FMU32S      | FMU33S<br>FMU34S | FMU36S | 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 Tc=125°C                                                | IF(AV)   | 20.0        |                  |        | A        |
| Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method) | IFSM     | 200         | 175              |        | A        |
| Maximum Instantaneous Forward Voltage @ 10.0 A                                                    | VF       | 0.98        | 1.3              | 1.7    | V        |
| Maximum DC Reverse Current @TJ=25°C<br>At Rated DC Blocking Voltage @TJ=125°C                     | IR       | 10.0<br>250 |                  |        | uA<br>uA |
| Maximum Reverse Recovery Time (Note 1)                                                            | Trr      | 35-50       |                  |        | nS       |
| Typical junction Capacitance (Note 2)                                                             | CJ       | 120         | 70               |        | pF       |
| Operating Junction and Storage Temperature Range                                                  | TJ, TSTG | -55 to +150 |                  |        | °C       |

NOTES : (1) Reverse recovery test conditions IF = 0.5A, IR = 1.0A, Irr = 0.25A.

(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.

FIG.1 - FORWARD CURRENT DERATING CURVE

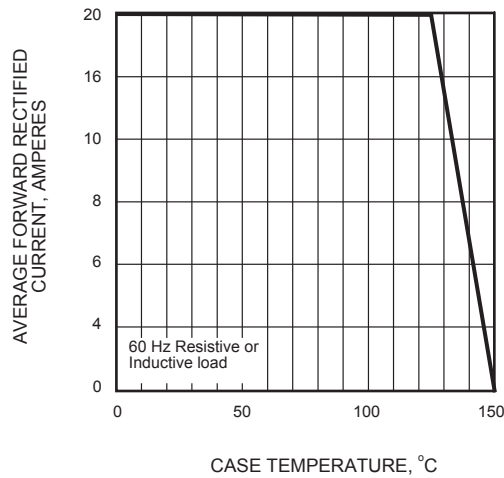


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

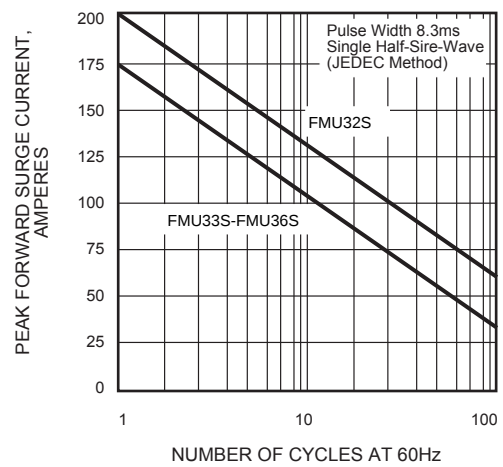


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

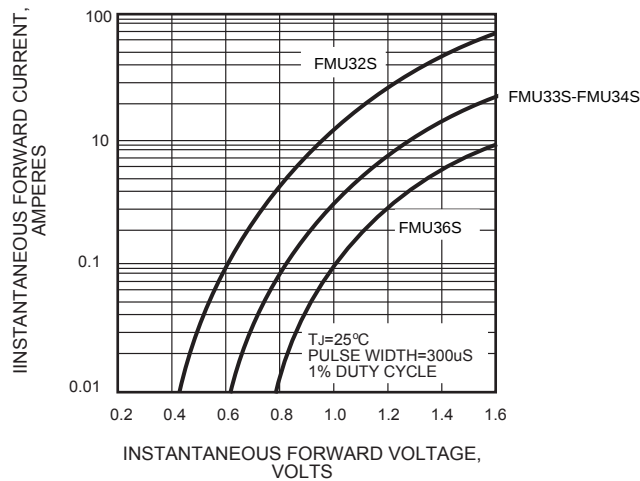


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

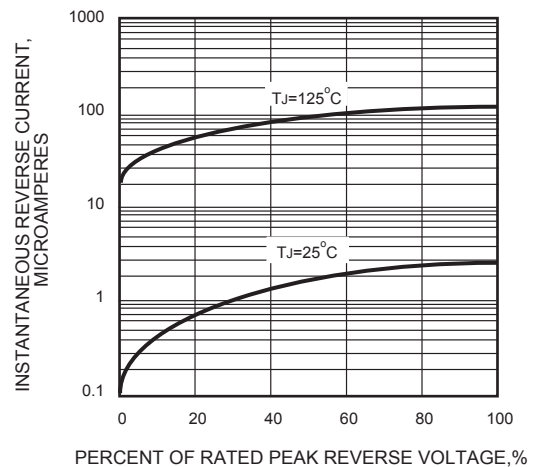


FIG.5 - TYPICAL JUNCTION CAPACITANCE

