

Pb Free Plating Product

ESAC25-02N/ESAC25-04N/ESAC25-06N



10 Ampere Heatsink Dual Common Anode Fast Recovery Half Bridge Rectifiers

**Features**

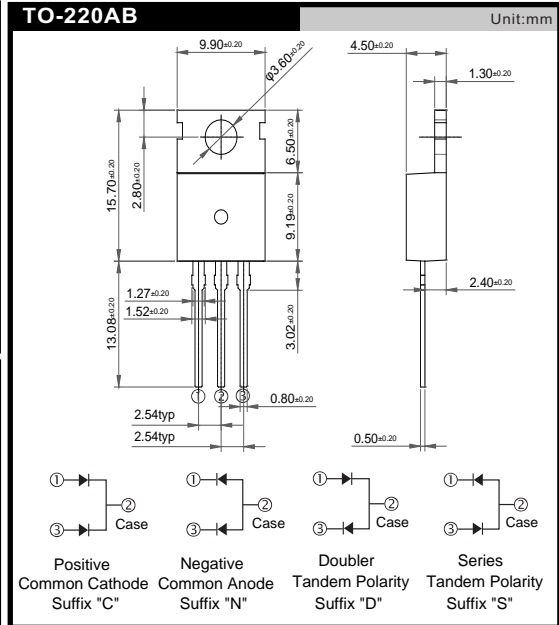
- \* Latest GPP technology with super fast recovery time
- \* Low forward voltage drop
- \* High current capability
- \* Low reverse leakage current
- \* High surge current capability

**Application**

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

**Mechanical Data**

- \* Case: Heatsink TO-220AB/TO-220CE
- \* 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: 2.2 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   | ESAC25-02N  | ESAC25-04N | ESAC25-06N | 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=100°C  | IF(AV)   | 10.0        |            |            | A    |
| Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method) | IFSM     | 100         |            |            | A    |
| Maximum Instantaneous Forward Voltage @ 5.0 A   | VF       | 0.98        | 1.3        | 1.7        | V    |
| Maximum DC Reverse Current @Tj=25°C At Rated DC Blocking Voltage @Tj=125°C                        | IR       | 5.0         |            |            | uA   |
|   |          | 100         |            |            | uA   |
| Maximum Reverse Recovery Time (Note 1)  | Trr      | 35          |            |            | nS   |
| Typical junction Capacitance (Note 2)   | CJ       | 65          |            |            | pF   |
| Typical Thermal Resistance (Note 3)   | RθJC     | 2.2         |            |            | °C/W |
| 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.  
 (3) Thermal Resistance junction to case.

FIG.1 - FORWARD CURRENT DERATING CURVE

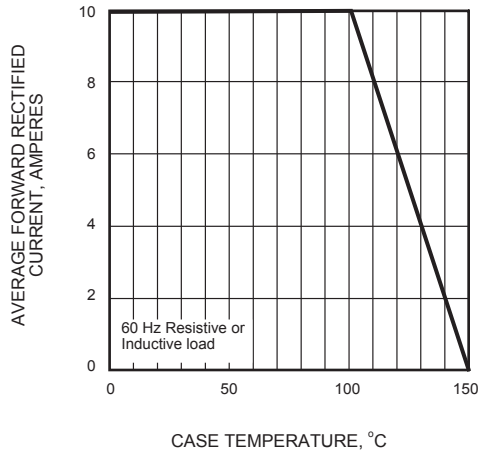


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

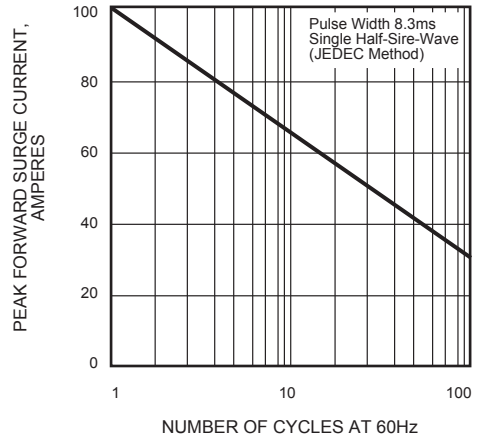


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

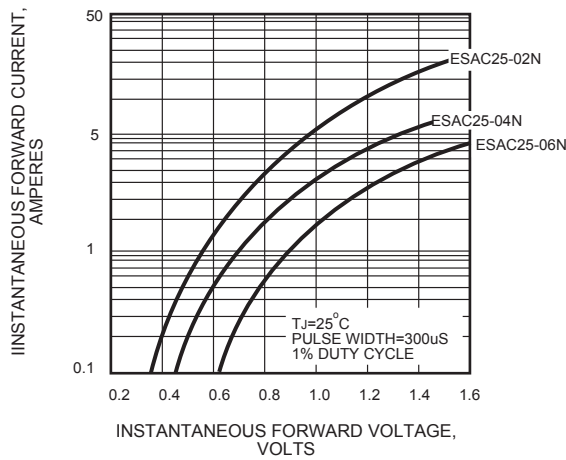


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

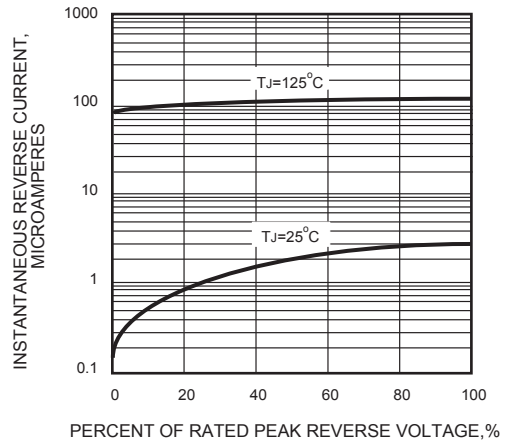


FIG.5 - TYPICAL JUNCTION CAPACITANCE

