

Pb Free Plating Product

## ESAD25-02D thru ESAD25-06D



16.0 Ampere Dual Doubler Tandem Polarity Fast Recovery Rectifier Diodes

**Features**

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

**Application**

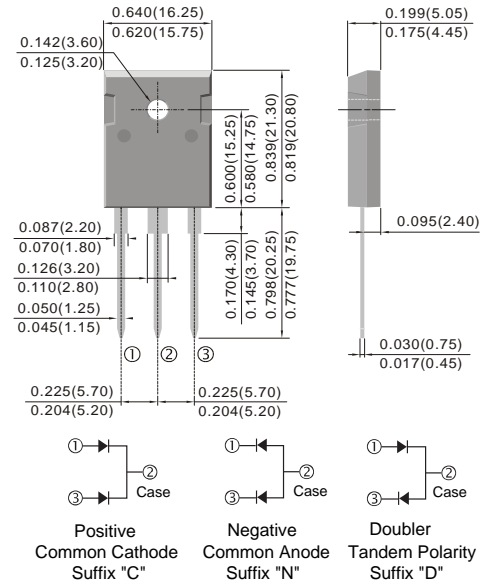
- ★ Automotive Inverters/Solar Inverters
- ★ Plating Power Supply, SMPS and UPS
- ★ Car Audio Amplifiers and Sound Device Systems

**Mechanical Data**

- ★ Case: Heatsink TO-3P/TO-247AD
- ★ 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-247AD/TO-3P**

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	ESAD25-02C ESAD25-02N ESAD25-02D	ESAD25-04C ESAD25-04N ESAD25-04D	ESAD25-06C ESAD25-06N ESAD25-06D	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	200	400	600	V
Maximum RMS Voltage	V <sub>RMS</sub>	140	280	420	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	200	400	600	V
Maximum Average Forward Rectified Current T <sub>c</sub> =100°C	I <sub>F(AV)</sub>	16.0			A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	175	150		A
Maximum Instantaneous Forward Voltage @ 8.0 A	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>	10.0 250			uA uA
Maximum Reverse Recovery Time (Note 1)	T <sub>rr</sub>	35			nS
Typical junction Capacitance (Note 2)	C <sub>J</sub>	90			pF
Typical Thermal Resistance (Note 3)	R <sub>θJC</sub>	2.2			°CW
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, R = 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

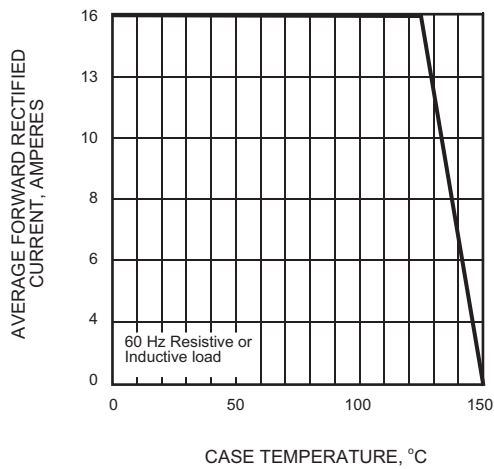


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

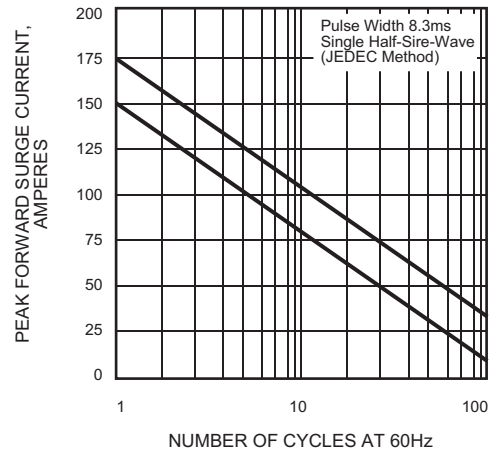


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

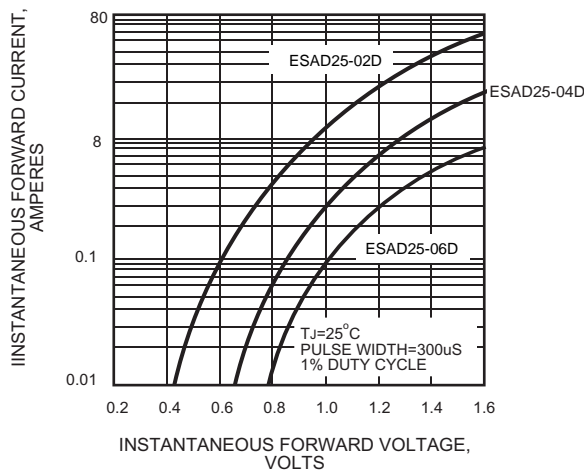


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

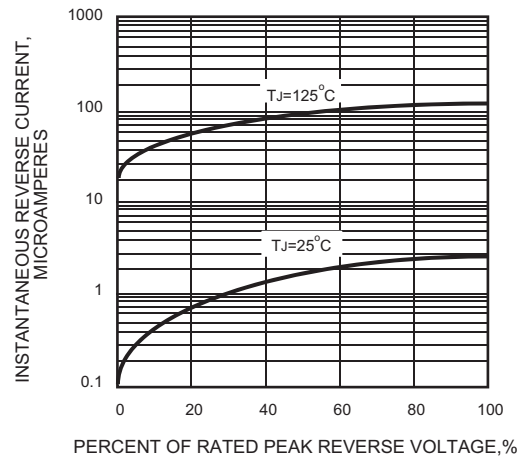


FIG.5 - TYPICAL JUNCTION CAPACITANCE

