

Pb Free Plating Product

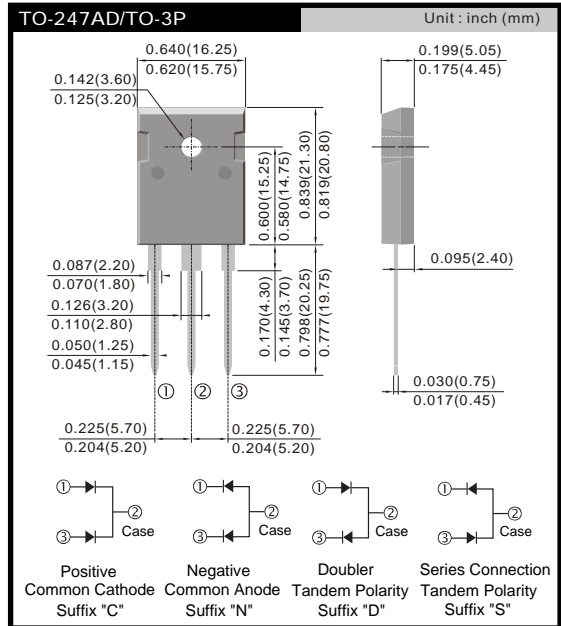
ESAD33-02C/ESAD33-02N



16 Ampere Heatsink Unipolar Ultra Fast Recovery Half Bridge Rectifiers

- Features**
- ★ Latest GPP technology with super fast recovery time
 - ★ 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, Motor Control 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



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%.

RATING	SYMBOL	ESAD33-02C/ESAD33-02N	UNIT
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	200	V
Maximum Working Reverse Voltage	V _{RWM}	200	V
Maximum DC Blocking Voltage	V _{DC}	200	V
Maximum Average Forward Current Total Device, (Rated V _R), T _c = 150°C	I _{F(AV)}	8.0 (Per Leg) 16 (Total Device)	A
Maximum Peak Rectified Forward Current (Rated V _R , Square Wave, 20 kHz) T _c = 150°C	I _{FRM}	16	A
Maximum Non-repetitive Peak Forward Surge Current (Halfwave, single phase, 60 Hz) Per Leg	I _{FSM}	100	A
Maximum Forward Voltage at I _F = 8 A, T _c = 25°C	V _F	0.975 ⁽¹⁾	V
Maximum Instantaneous Reverse Current ⁽¹⁾ (Rated dc Voltage)	I _R	5 (T _c = 25°C)	μA
	I _{R(H)}	250 (T _c = 150°C)	μA
Maximum Reverse Recovery Time (I _F = 0.5A, I _R = 1A ; I _{rr} = 0.25 A)	T _{rr}	25~35	ns
Maximum Thermal Resistance, Junction to Case	R _{θJC}	3.0	°C/W
Junction Temperature Range	T _J	- 65 to + 175	°C
Storage Temperature Range	T _{STG}	- 65 to + 175	°C

Note :
 (1) Pulse Test : Pulse Width = 300 μs Duty Cycle ≤ 2 0%

RATING AND CHARACTERISTIC CURVES (ESAD33-02C/ESAD33-02N)

FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

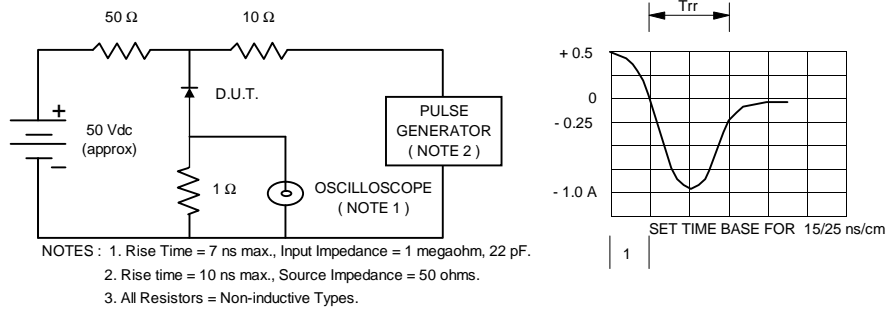


FIG. 2 - CURRENT DERATING CASE, PER LEG

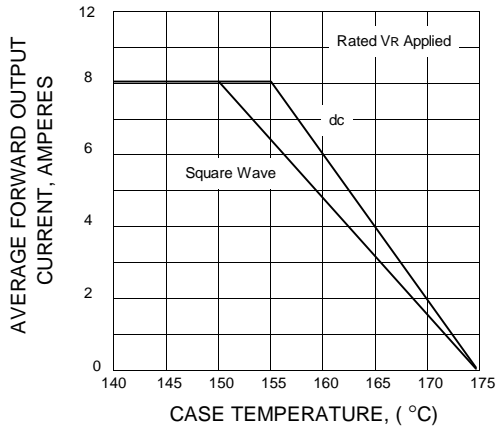


FIG. 3 - POWER DISSIPATION, PER LEG

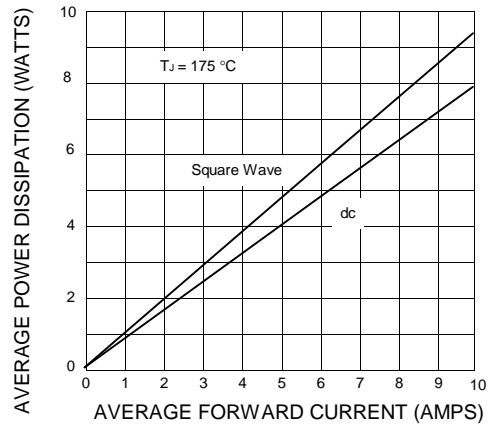


FIG. 4 - TYPICAL FORWARD VOLTAGE, PER LEG

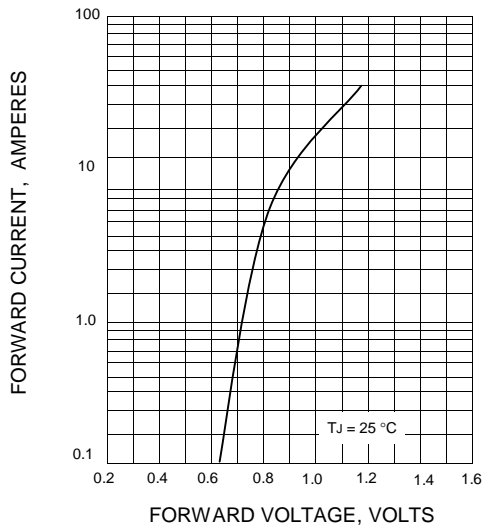


FIG. 5 - TYPICAL REVERSE CURRENT, PER LEG

