# TAR3525

## 35.0 AMPS. Load Dump Rectifiers



Voltage Range
24 to 32 Volts
Current
35.0 Amperes

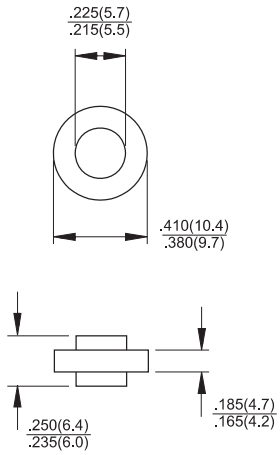
### Features

- ✧ Plastic material used carries Underwriters Laboratory Classification 94V-O
- ✧ Low cost construction utilizing void-free molded plastic technique
- ✧ Low cost
- ✧ Diffused junction
- ✧ Low leakage
- ✧ High surge capability
- ✧ High temperature soldering guaranteed: 260°C for 10 seconds

### Mechanical Data

- ✧ Case: Molded plastic case
- ✧ Terminals: Plated terminals, solderable per MIL-STD-202, Method 208
- ✧ Polarity: Color ring denotes cathode end
- ✧ Weight: 0.07 ounce, 1.8 grams
- ✧ Mounting position: Any

**AR**




**Dimensions in inches and (millimeters)**

### Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

| Type Number | Symbol | TAR3525 | | Units |
|---|---|---|---|---|
| Maximum Recurrent Peak Revere Voltage | $V_{RRM}$ | 20 | | V |
| Working Peak Reverse Voltage | $V_{RMS}$ | | | |
| Maximum DC Blocking Voltage | $V_{DC}$ | | | |
| Reverse Zener Voltage (Note 1) | $V_Z$ | 24 Min | 32 Max | V |
| Maximum Clamping Voltage VC (Note 2) | $V_C$ | 35 | | V |
| Maximum Average Forward Rectified Current @ Tc = 100℃ | $I_F$ | 35 | | A |
| Non-Repetitive Peak Forward Surge Current, (half wave, single phase, 60 Hz sine applied to rated load) | $I_{FSM}$ | 600 | | A |
| Repetitive Peak Reverse Surge Current (Time Constant = 10 mSec Duty Cycle <1.0%, TC=25℃ | $I_{RSM}$ | 110 | | A |
| MaximumInstantaneous Forward Voltage (IF=100A @ 400uSec pulse, Tc=25℃) | $V_F$ | 1.1 | | V |
| Maximum DC Reverse Current (at Rated DC Blocking Voltage @Tc=25℃) | $I_R$ | 200 | | nA |
| Maximum Thermal Resistance, Junction to Case (Note 3) | $R\theta_{JC}$ | 0.8 | | ℃/W |
| Operating and Storage Temperature Range | $T_J$, $T_{STG}$ | -50 to +175 | | ℃ |

Notes: 1. Reverse Zener Voltage Test Conditions: IR=5mA, TC=25℃, PW=30mS.
2. VC Test Conditions: IR=65A, TC=25℃, PW=100uS.
3. Single Side Cooled.

## RATINGS AND CHARACTERISTIC CURVES (TAR3525)

FIG.1- POWER DERATING CURVE

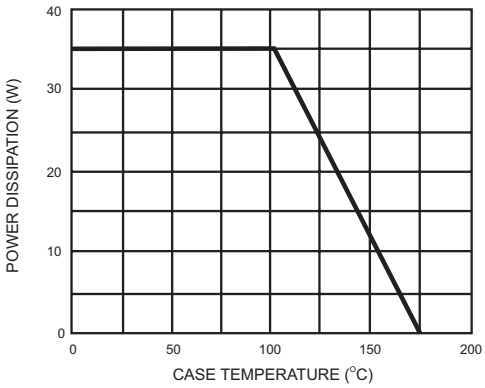



FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVES

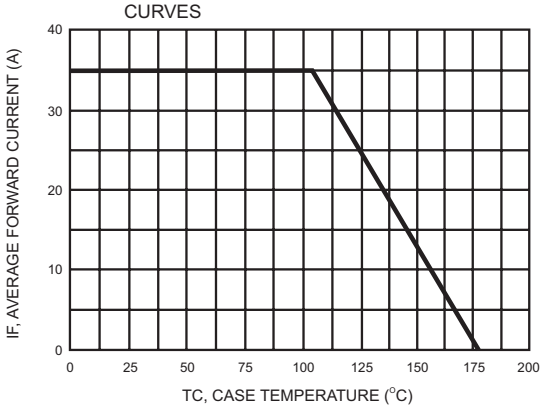



FIG.3- PULSE WAVEFORM

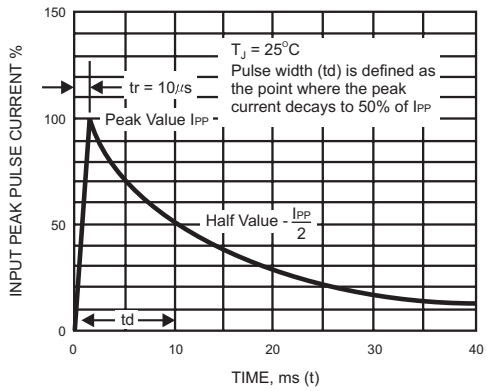



FIG.4- REVERSE POWER DERATING

