

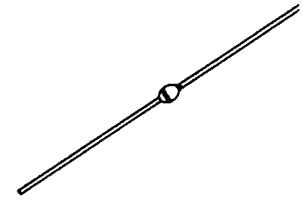
# Passivated Rectifier

**TRANSIENT VOLTAGE PROTECTED**  
**2.5 Amps 200-1000 Volts**

|        |
|--------|
| 1N4245 |
| 1N4246 |
| 1N4247 |
| 1N4248 |
| 1N4249 |

THE GENERAL ELECTRIC 1N4245-49 SERIES ARE A14 TYPES, 2.5 AMPERE RATED, AXIAL-LEADED, GENERAL PURPOSE RECTIFIERS. DUAL HEAT-SINK CONSTRUCTION PROVIDES RIGID MECHANICAL SUPPORT FOR THE PELLET AND EXCELLENT THERMAL CHARACTERISTICS. PASSIVATION AND PROTECTION OF THE SILICON PELLETS PN JUNCTION ARE PROVIDED BY SOLID GLASS; NO ORGANIC MATERIALS ARE PRESENT WITHIN THE HERMETICALLY-SEALED PACKAGE.

The 1N4245-49 series (A14's) are "Transient-Voltage Protected." These devices will dissipate up to 1000 watts in the reverse direction without damage. Voltage transients generated by household or industrial power lines are dissipated.



**absolute maximum ratings:** (25°C unless otherwise specified)

|   | 1N4245                        | 1N4246 | 1N4247 | 1N4248 | 1N4249 |                        |
|---|-------------------------------|--------|--------|--------|--------|------------------------|
| *Reverse Voltage (-65 to +160°C, T <sub>J</sub> )   |                               |        |        |        |        |                        |
| Working Peak, V <sub>RWM</sub>  | 200                           | 400    | 600    | 800    | 1000   | Volts                  |
| DC, V <sub>R</sub>  | 200                           | 400    | 600    | 800    | 1000   | Volts                  |
| *Average Forward Current, I <sub>O</sub>  |                               |        |        |        |        |                        |
| 55°C ambient (see rating curves)  | ←————— 1.0 —————→             |        |        |        |        | Amp                    |
| 25°C " " "  | ←————— 2.5 —————→             |        |        |        |        | Amp                    |
| *Peak Surge Forward Current, I <sub>FSM</sub>   |                               |        |        |        |        |                        |
| Non-repetitive, .0083 sec   |                               |        |        |        |        |                        |
| Half sine wave  | ←————— 25 —————→              |        |        |        |        | Amps                   |
| Full load JEDEC method  |                               |        |        |        |        |                        |
| Peak Surge Forward Current, I <sub>FSM</sub>  |                               |        |        |        |        |                        |
| Non-repetitive, .001 sec  |                               |        |        |        |        |                        |
| Half sine wave  |                               |        |        |        |        |                        |
| Full load 160°C, T <sub>J</sub>   | ←————— 90 —————→              |        |        |        |        | Amps                   |
| No Load (25°C Case)   | ←————— 100 —————→             |        |        |        |        | Amps                   |
| *Junction Operating Temperature Range, T <sub>J</sub>   | ←————— -65°C to +160°C —————→ |        |        |        |        |                        |
| *Storage Temperature Range, T <sub>STG</sub>  | ←————— -65°C to +200°C —————→ |        |        |        |        |                        |
| I <sup>2</sup> t, RMS for fusing, .001 to .01 sec.  | ←————— 4.0 —————→             |        |        |        |        | Amps <sup>2</sup> sec. |
| Peak Non-Repetitive Reverse Power Rating, P <sub>RM</sub>   | ←————— 1000 —————→            |        |        |        |        | Watts                  |
| (20 μsec. half sine wave, at Max. T <sub>J</sub> )  |                               |        |        |        |        |                        |
| Mounting: Any position. Lead temperature 290°C maximum to 1/8" from body for 5 seconds maximum during mounting. |                               |        |        |        |        |                        |

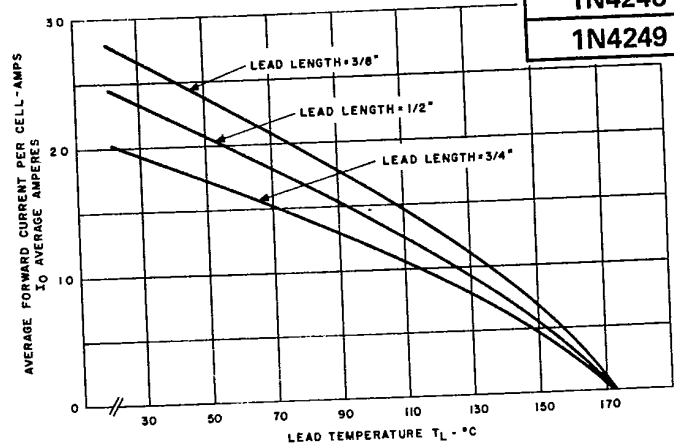
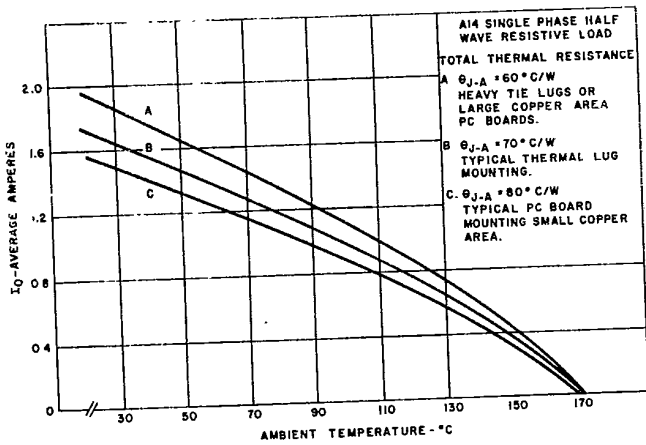
**electrical characteristics:** (25°C unless otherwise specified)

|   |                   |       |
|---|-------------------|-------|
| * Maximum Forward Voltage Drop, V <sub>FM</sub> | ←————— 1.2 —————→ | Volts |
| I <sub>F</sub> = 1.0A, T <sub>A</sub> = +55°C   |                   |       |
| * Maximum Reverse Current, I <sub>RM</sub>      |                   |       |
| at rated V <sub>R</sub>                         |                   |       |
| T <sub>J</sub> = +25°C                          | ←————— 1.0 —————→ | μA    |
| T <sub>J</sub> = +125°C                         | ←————— 25 —————→  | μA    |
| Typical Reverse Recovery Time, t <sub>rr</sub>  | ←————— 2.5 —————→ | μsec  |
| Maximum Reverse Recovery Time, t <sub>rr</sub>  | ←————— 5.0 —————→ | μsec  |
| (Recovery Circuit Per MIL-S-19500/286B)         |                   |       |
| *JEDEC Registered data.                         |                   |       |

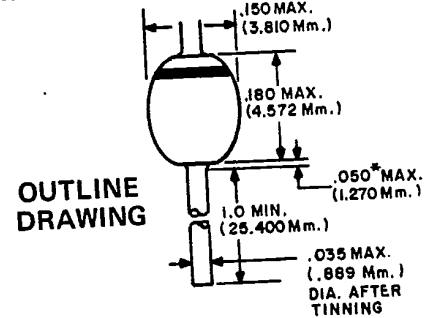
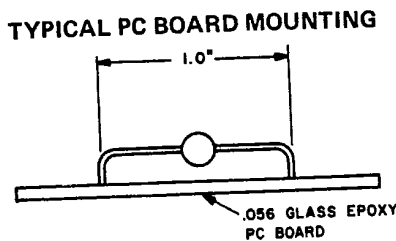
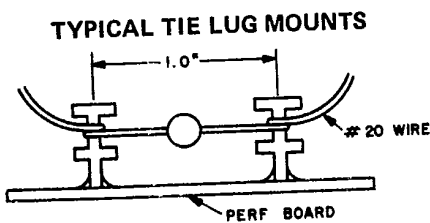
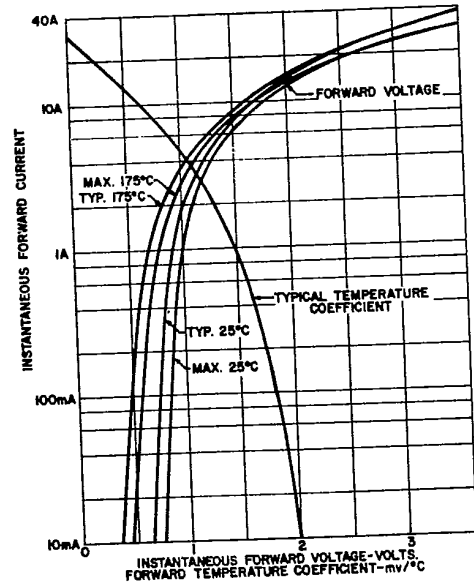
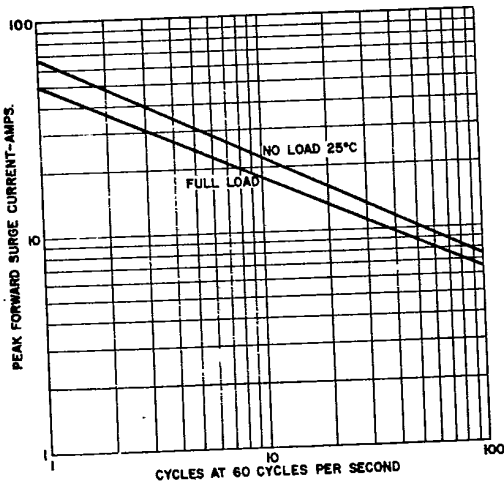
1N4245-1

**MAXIMUM ALLOWABLE DC OUTPUT CURRENT RATINGS**  
**SINGLE PHASE**  
**600 VOLTS & BELOW**

|        |
|--------|
| 1N4245 |
| 1N4246 |
| 1N4247 |
| 1N4248 |
| 1N4249 |



**TYPICAL CHARACTERISTICS**



ALL DIMENSIONS ARE IN INCHES AND (METRIC)  
 \*WELD AND SOLDER FLASH NOT CONTROLLED IN THIS AREA

1N4245-2  
 271



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