74 DE 7294621 0001327 3

Passivated **Rectifier**

TRANSIENT VOLTAGE PROTECTED 2.5 Amps 200-1000 Volts

1N4305	SEE PAGE 229
	IN4245
	IN4246
	IN4247
	IN4248
	IN4249

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 WITH-IN 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.

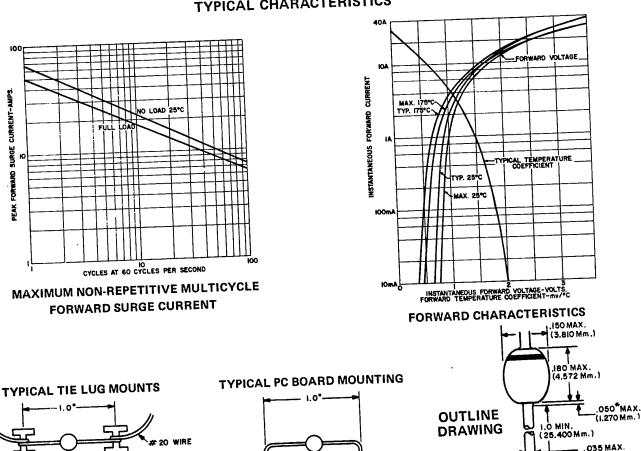


absolute maximum ratings: (25°C unless otherwise specified)

	1N4245	1N4246	1N4247	1N4248	1N4249	
*Reverse Voltage (-65 to $+160$ °C, T_{J})						
Working Peak, V_{RWM}	200	400	600	800	1000	Volts
DC , V_{R}	200	400	600	800	1000	\mathbf{Volts}
*Average Forward Current, ${f I}_0$						
55°C ambient (see rating curves)			1.0			
25°C "		 ;	2.5			Amp
*Peak Surge Forward Current, I _{FSM}						
Non-repetitive, .0083 sec						
Half sine wave	•		25 ——			Amps
Full load JEDEC method						
Peak Surge Forward Current, I _{FSM}						
Non-repetitive, .001 sec						
Half sine wave						
Full load 160°C, T _J						\mathbf{Amps}
No Load (25°C Case)						Amps
*Junction Operating Temperature Range, T _J	•	- −65°C t	o +160°C			
*Storage Temperature Range, T _{STG}		- −65°C t	o +200°C			
I ² t, RMS for fusing, .001 to .01 sec.	——		4.0 ——			$ m Amps^2~se$
Peak Non-Repetitive Reverse						
Power Rating, P_{RM}	4	10	000			Watts
(20 μ sec. half sine wave, at Max. T_J)						
(20 μ sec. half sine wave, at Max. T_J) Mounting: Any position. Lead temperature 290°C	c maximum	to ½"				
Mounting: Any position. Lead temperature 290°C from body for 5 seconds maximum dur	ing mounti	ing.				
Mounting: Any position. Lead temperature 290°C from body for 5 seconds maximum dur electrical characteristics: (25°C unless other position)	ring mounti	ing. d)			·	Volta
Mounting: Any position. Lead temperature 290°C from body for 5 seconds maximum dur electrical characteristics: (25°C unless oth * Maximum Forward Voltage Drop, V _{FM}	ring mounti	ing.	1.2 ——			Volts
Mounting: Any position. Lead temperature 290° C from body for 5 seconds maximum durelectrical characteristics: (25°C unless oth * Maximum Forward Voltage Drop, V_{FM} $I_F = 1.0$ A, $T_A = +55^{\circ}$ C	ring mounti	ing. d)	1.2			Volts
Mounting: Any position. Lead temperature 290°C from body for 5 seconds maximum dure electrical characteristics: (25°C unless oth * Maximum Forward Voltage Drop, V _{FM} I _F = 1.0A, T _A = +55°C * Maximum Reverse Current, I _{RM}	ring mounti	ing. d)	1.2		-	Volts
Mounting: Any position. Lead temperature 290°C from body for 5 seconds maximum durelectrical characteristics: (25°C unless oth * Maximum Forward Voltage Drop, V_{FM} $I_F = 1.0\text{A}, T_A = +55^{\circ}\text{C}$ * Maximum Reverse Current, I_{RM} at rated V_R	ring mounti	ing.				
Mounting: Any position. Lead temperature $290^{\circ}C$ from body for 5 seconds maximum durelectrical characteristics: (25°C unless oth * Maximum Forward Voltage Drop, V_{FM} $I_{F} = 1.0A, T_{A} = +55^{\circ}C$ * Maximum Reverse Current, I_{RM} at rated V_{R} $T_{J} = +25^{\circ}C$	ring mounti	d)	1.0 ——		·	$\mu \mathbf{A}$
Mounting: Any position. Lead temperature 290°C from body for 5 seconds maximum durelectrical characteristics: (25°C unless oth * Maximum Forward Voltage Drop, V_{FM} $I_F = 1.0\text{A}, T_A = +55^{\circ}\text{C}$ * Maximum Reverse Current, I_{RM} at rated V_R $T_J = +25^{\circ}\text{C}$ $T_J = +125^{\circ}\text{C}$	ring mounti	d)	1.0 ———		-	μ Α μ Α
Mounting: Any position. Lead temperature $290^{\circ}C$ from body for 5 seconds maximum durelectrical characteristics: (25°C unless oth * Maximum Forward Voltage Drop, V_{FM} $I_F = 1.0A$, $T_A = +55^{\circ}C$ * Maximum Reverse Current, I_{RM} at rated V_R $T_J = +25^{\circ}C$ $T_J = +125^{\circ}C$ Typical Reverse Recovery Time, t_{rr}	ring mounti	d)	1.0 ——— 25 ——— 2.5 ———			μΑ μΑ μsec
Mounting: Any position. Lead temperature $290^{\circ}C$ from body for 5 seconds maximum durelectrical characteristics: (25°C unless oth * Maximum Forward Voltage Drop, V_{FM} $I_F = 1.0A$, $T_A = +55^{\circ}C$ * Maximum Reverse Current, I_{RM} at rated V_R $T_J = +25^{\circ}C$ $T_J = +125^{\circ}C$ Typical Reverse Recovery Time, t_{rr} Maximum Reverse Recovery Time, t_{rr}	ring mounti	d)	1.0 ——— 25 ——— 2.5 ———			μ Α μ Α
Mounting: Any position. Lead temperature $290^{\circ}C$ from body for 5 seconds maximum durelectrical characteristics: (25°C unless oth * Maximum Forward Voltage Drop, V_{FM} $I_F = 1.0A$, $T_A = +55^{\circ}C$ * Maximum Reverse Current, I_{RM} at rated V_R $T_J = +25^{\circ}C$ $T_J = +125^{\circ}C$ Typical Reverse Recovery Time, t_{rr}	ring mounti	d)	1.0 ——— 25 ——— 2.5 ———			μΑ μΑ μsec

DE 7294621 0001328 5 12 T-01-13 7294621 POWEREX INC MAXIMUM ALLOWABLE DC OUTPUT CURRENT RATINGS 1N4245 1N4246 SINGLE PHASE 1N4247 600 VOLTS & BELOW 1N4248 1N4249 AI4 SINGLE PHASE HALF WAVE RESISTIVE LOAD LEAD LENGTH : 3/6" CELL-AMPS OTAL THERMAL RESISTANCE #J-A *60 °C/W
HEAVY TIE LUGS OR
LARGE COPPER AREA
PC BOARDS. LEAD LENGTH - 1/2" 2.0 FORWARD CURRENT PER C.
TO AVERAGE AMPERES
O LEAD LENGTH = 3/4" eJ-A =70°C/W TYPICAL THERMAL LUG MOUNTING. AMPERES .0J.A *80°C/W TYPICAL PC BOARD MOUNTING SMALL COPPER AREA. AVERAGE ည်း ၀ 0 170 90 110 30 LEAD TEMPERATURE TL - °C AMBIENT TEMPERATURE - "C TIE POINT OPERATION AMBIENT OPERATION (See Typical Mounting Below)

TYPICAL CHARACTERISTICS



.056 GLASS EPOXY

PC BOARD

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

(.889 Mm.) DIA. AFTER TINNING

PERF BOARD