

New Jersey Semi-Conductor Products, Inc.

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IN4245
IN4246
IN4247
IN4248
IN4249

THE 1N4245-49 SERIES ARE 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 PELLET'S PN JUNCTION ARE PROVIDED BY SOLID GLASS; NO ORGANIC MATERIALS ARE PRESENT WITHIN THE HERMETICALLY-SEALED PACKAGE.

The 1N4245-49 series 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	Volts
*Average Forward Current, I _O						
55°C ambient (see rating curves)	←	1.0	←	←	←	Amp
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	←	90	←	←	←	Amps
No Load (25°C Case)	←	100	←	←	←	Amps
*Junction Operating Temperature Range, T _J	←	−65°C to +160°C	←	←	←	
*Storage Temperature Range, T _{STG}	←	−65°C to +200°C	←	←	←	
I ² t, RMS for fusing, .001 to .01 sec.	←	4.0	←	←	←	Amps ² sec.
Peak Non-Repetitive Reverse						
Power Rating, P _{RM}	←	1000	←	←	←	Watts
(20 μsec. half sine wave, at Max. T _J)						
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 _{FM}	←	1.2	←	Volts
I _F = 1.0A, T _A = +55°C				
* Maximum Reverse Current, I _{RM}				
at rated V _R				
T _J = +25°C	←	1.0	←	μA
T _J = +125°C	←	25	←	μA
Typical Reverse Recovery Time, t _{rr}	←	2.5	←	μsec
Maximum Reverse Recovery Time, t _{rr}	←	5.0	←	μsec

*JEDEC Registered data.