New Jersey Semi-Conductor Products, Inc.

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Silicon Rectifier

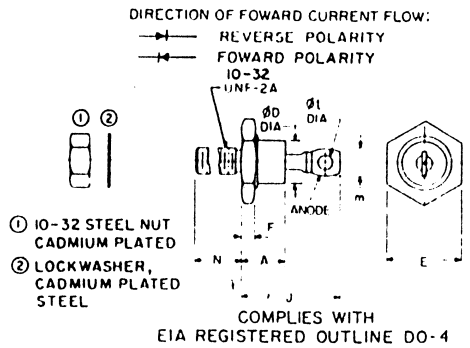
IN1612-16,R

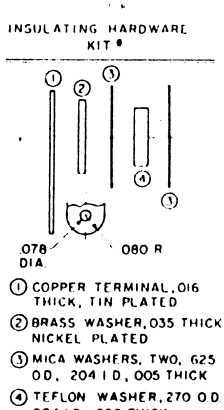
electrical ratings and specifications (60 cps, Resistive or Inductive Load)

	1N1612 1N1612R	1N1613 1N1613R	1N1614‡ 1N1614R	1N1615‡ 1N1615R	1N1616‡ 1N1616R	
Max. Allow. Transient Peak Reverse Voltage (Non-recurrent, 5 millisec. max. duration, T_j = 0 to 190°C)	100	200	350	600	800	Volts
Max. Allow. Peak Reverse Voltage (Repetitive)*	50	100	200	400	600	Volts
Max. Allow. RMS Voltage	35	70	140	280	420	Volts
Max. Allow. DC Blocking Voltage**	50	100	200	400	600	Volts
Max. Allow. Forward Current (Single Phase +150°C stud temp.)	5 amperes					
Max. Allow. Peak One Cycle Surge Current (non-recurrent)	150 amperes					
I^2t Rating [for t greater than .0008 sec. and less than .0083 sec. (non-recurrent)]	25 ampere² sec. — min. rating (T_j = −65°C to +190°C)					
Max. Full Load Voltage Drop (Single Phase, Full Cycle Average +150°C stud temp.)	.64 Volts					
Max. Leakage Current at Full Load (Single Phase, Full Cycle Average 150°C stud temp.)	1.0	1.0	1.0	1.0	1.0	ma
Max. Thermal Resistance (junction to stud)	7.0°C/Watt					
Junction Operating and Storage Temp. Range	−65°C to +190°C					
Stud Torque	Minimum 12 in.-lbs.; Maximum 15 in.-lbs.					

*Maximum voltages apply with a heat sink thermal resistance of 22°C/Watt or less at maximum rated junction temperature.
**Maximum voltages apply with a heat sink thermal resistance of 7°/Watt or less at maximum rated junction temperature.
‡Available as MIL-S-19500/162 devices.

OUTLINE DRAWING





SYMBOL	INCHES MIN.	INCHES MAX.	MILLIMETERS MIN.	MILLIMETERS MAX.	NOTES
A		.405		10.29	
ϕD		.424		10.77	
E	.424	.437	10.77	11.10	
F	.075	.175	1.91	4.45	
J		.800		20.32	
m		.250		6.35	1
N	.422	.453	10.72	11.51	
ϕt	.060		1.52		
W					2

NOTES:
1. Angular orientation of this terminal is undefined.
2. 10-32 UNF-2A. Maximum pitch diameter of plated threads shall be basic pitch diameter (.1697", 4.29 MM). Ref: (Screw thread standards for Federal Services 1957) Handbook H28, P1