6 Lake Street, Lawrence, MA 01841
1-800-446-1158 / (978) 620-2600 / Fax: (978) 689-0803
Website: http://www.microsemi.com

TECHNICAL DATA SHEET

HIGH RELIABILITY POWER RECTIFIER

Qualified per MIL-PRF-19500/260

- ***Glass Passivated Die***
- ***Glass to Metal Seal Construction***
- ***25 Amps Surge Rating***
- ***VRRM to 1000 Volts***

DEVICES

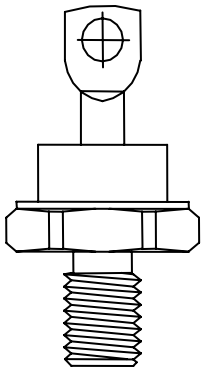
1N1124A **1N1124RA** **1N3649** **1N3649R**
1N1126A **1N1126RA** **1N3650** **1N3650R**
1N1128A **1N1128RA**

LEVELS

JAN

ABSOLUTE MAXIMUM RATINGS (T_C = +25°C unless otherwise noted)

Parameters / Test Conditions			Symbol	Value	Unit
Peak Repetitive Reverse Voltage	1N1124A 1N1126A 1N1128A 1N3649 1N3650	1N1124RA 1N1126RA 1N1128RA 1N3649R 1N3650R	V_{RWM}	200 400 600 800 1000	V
Average Forward Current, T_C = 150°			I_F	3.3	A
Peak Surge Forward Current @ t_p = 8.3ms, half sinewave, T_C = 150°C, T = 1/120s			I_{FSM}	25	A
Thermal Resistance, Junction to Case			$R_{\theta jc}$	2.0	°C/W
Operating Case Temperature Range			T_C	-65°C to 150°C	°C
Storage Temperature Range			T_{stg}	-65°C to 200°C	°C



DO-203AA(DO-4)

ELECTRICAL CHARACTERISTICS (T_A = +25°C, unless otherwise noted)

Parameters / Test Conditions			Symbol	Min.	Max.	Unit
Forward Voltage I_F = 10A, T_j = 25°C*			V_F		2.2	V
Reverse Current V_R = 200, T_j = 25°C V_R = 400, T_j = 25°C V_R = 600, T_j = 25°C V_R = 800, T_j = 25°C V_R = 1000, T_j = 25°C	1N1124A 1N1126A 1N1128A 1N3649 1N3650	1N1124RA 1N1126RA 1N1128RA 1N3649R 1N3650R	I_R		5	µA
Reverse Current V_R = 200, T_j = 150°C V_R = 400, T_j = 150°C V_R = 600, T_j = 150°C V_R = 800, T_j = 150°C V_R = 1000, T_j = 150°C	1N1124A 1N1126A 1N1128A 1N3649 1N3650	1N1124RA 1N1126RA 1N1128RA 1N3649R 1N3650R	I_R		200	µA

* Pulse test: Pulse width 300 µsec, Duty cycle 2%

Note:

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HIGH RELIABILITY POWER RECTIFIER

GRAPHS

FIGURE 1
TYPICAL FORWARD CHARACTERISTICS

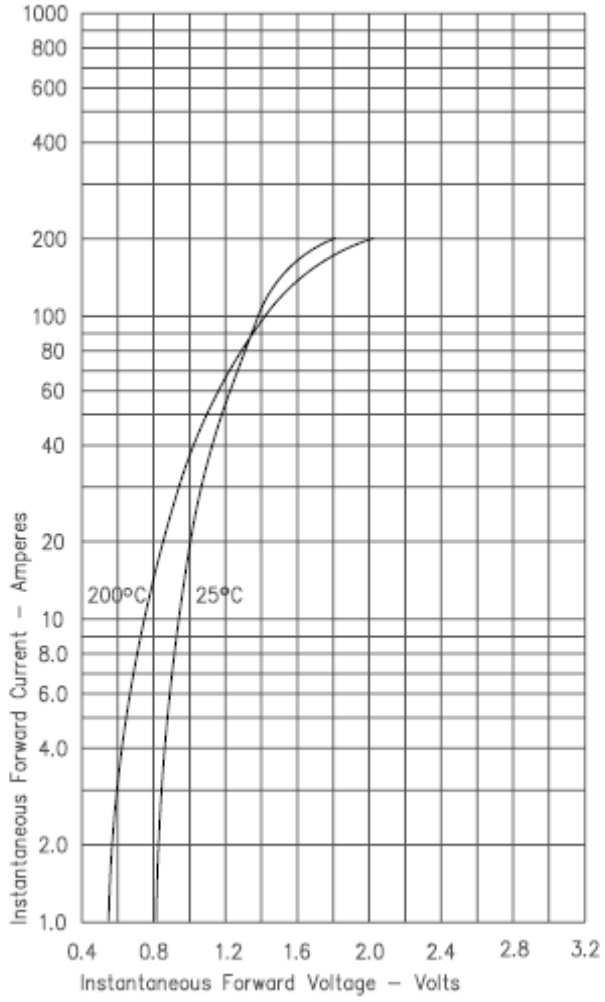
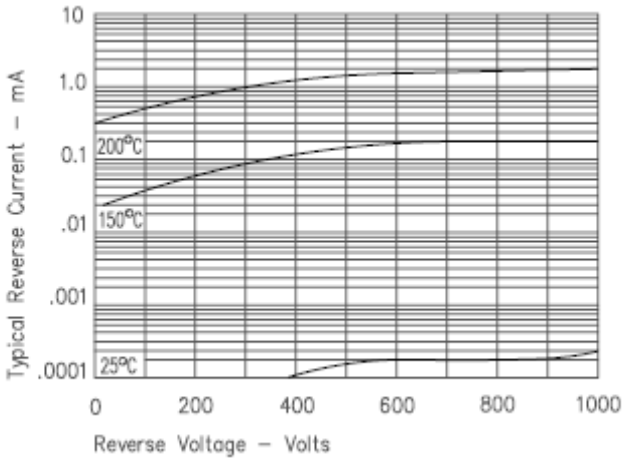


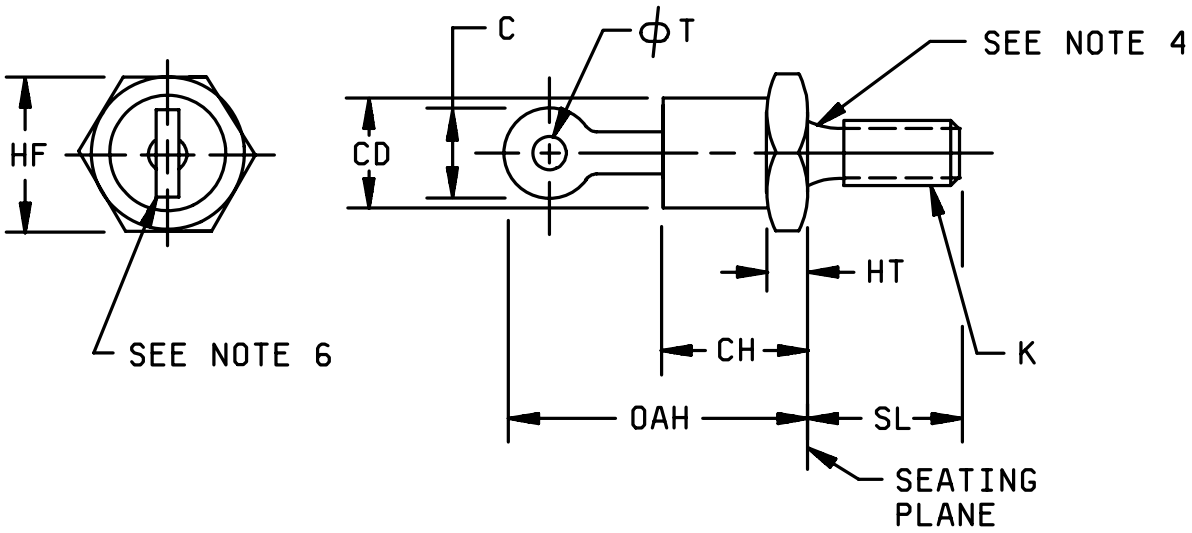
FIGURE 2
TYPICAL REVERSE CHARACTERISTICS



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HIGH RELIABILITY POWER RECTIFIER

PACKAGE DIMENSIONS



NOTES:

1. Dimensions are in inches.
2. Millimeters are given for general information only.
3. Units must not be damaged by torque of 15 inch-pounds applied to 10-32NF-2B nut assembled on thread
4. Diameter of unthreaded portion .189 inch (4.80 mm) max and .163 inch (4.14 mm) min.
5. Complete threads to extend to within 2.5 threads of seating plane.
6. Angular orientation of this terminal is undefined.
7. Max pitch diameter of plated threads shall be basic pitch diameter .169 inch (4.31 mm) reference FED-STD-H28 (Screw Thread Standards for Federal Services.)
8. The A.S.A. thread reference is 10-32UNF2A.
9. Terminal shape is unrestricted.
10. Reversed (anode to stud) units shall be marked with an R following the last digit in the type number
11. In accordance with ASME Y14.5M, diameters are equivalent to ϕx symbology.

Ltr	Dimensions				Notes
	Inches		Millimeters		
	Min	Max	Min	Max	
CH		.405		10.29	
CD		.424		10.77	
HF	.424	.437	10.77	11.10	
HT	.075	.175	1.90	4.44	
OAH		.800		20.32	
C		.250		6.35	9
ϕT	.060		1.52		
SL	.422	.453	10.72	11.51	
K					3,5,7

Physical dimensions (DO-203AA, formerly DO-4)

1N1202A, 1N1204A, 1N1206A, 1N3671A, 1N3673A and AR versions, and 1N1124A, 1N1126A, 1N1128A, and RA versions 1N3649, 1N3650, and R versions.