



**THE DATASHEET OF  
1N1128A**



## 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

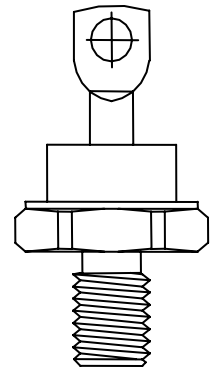
<b>1N1124A</b>	<b>1N1124RA</b>	<b>1N3649</b>	<b>1N3649R</b>
<b>1N1126A</b>	<b>1N1126RA</b>	<b>1N3650</b>	<b>1N3650R</b>
<b>1N1128A</b>	<b>1N1128RA</b>		

### LEVELS

**JAN**

### ABSOLUTE MAXIMUM RATINGS ( $T_C = +25^\circ\text{C}$ unless otherwise noted)

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



**DO-203AA(DO-4)**

### ELECTRICAL CHARACTERISTICS ( $T_A = +25^\circ\text{C}$ , unless otherwise noted)

Parameters / Test Conditions	Symbol	Min.	Max.	Unit
Forward Voltage $I_F = 10\text{A}$ , $T_j = 25^\circ\text{C}$ *	$V_F$		2.2	V
Reverse Current $V_R = 200$ , $T_j = 25^\circ\text{C}$ $V_R = 400$ , $T_j = 25^\circ\text{C}$ $V_R = 600$ , $T_j = 25^\circ\text{C}$ $V_R = 800$ , $T_j = 25^\circ\text{C}$ $V_R = 1000$ , $T_j = 25^\circ\text{C}$	$I_R$		5	$\mu\text{A}$
Reverse Current $V_R = 200$ , $T_j = 150^\circ\text{C}$ $V_R = 400$ , $T_j = 150^\circ\text{C}$ $V_R = 600$ , $T_j = 150^\circ\text{C}$ $V_R = 800$ , $T_j = 150^\circ\text{C}$ $V_R = 1000$ , $T_j = 150^\circ\text{C}$	$I_R$		200	$\mu\text{A}$

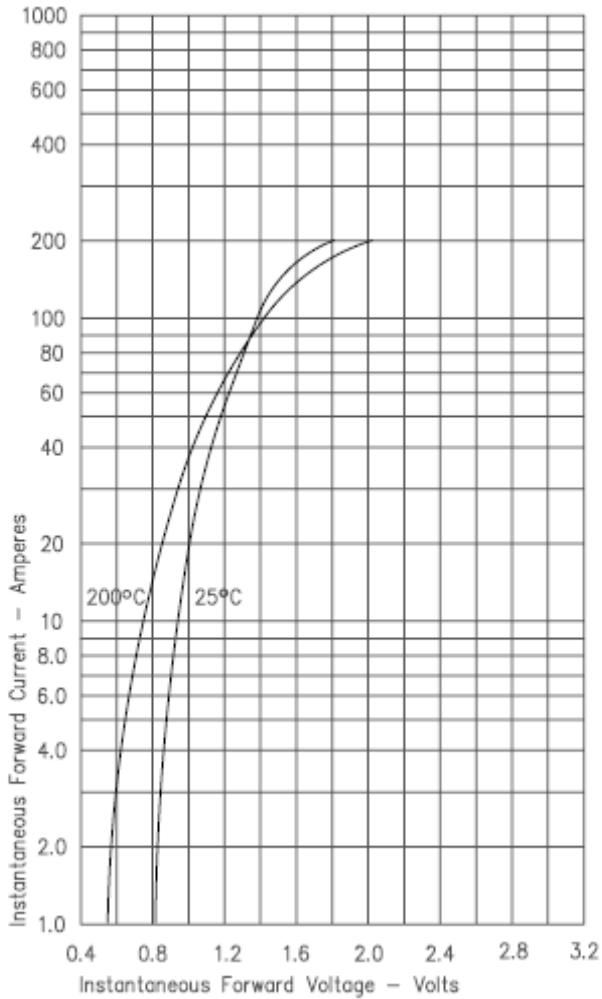
\* Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 2%

**Note:**

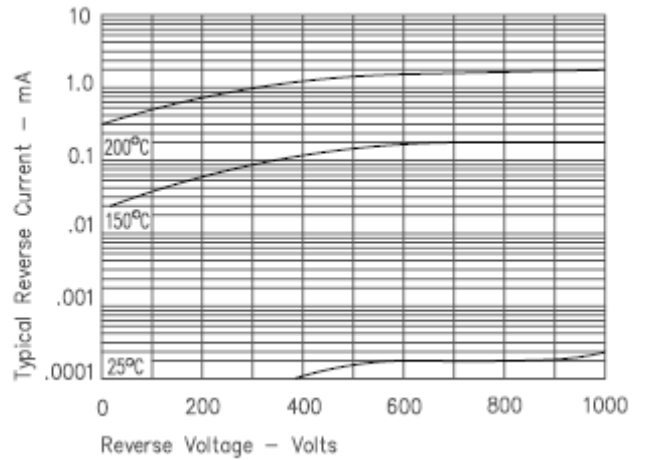
## HIGH RELIABILITY POWER RECTIFIER

**▶ GRAPHS**

**FIGURE 1**  
**TYPICAL FORWARD CHARACTERISTICS**

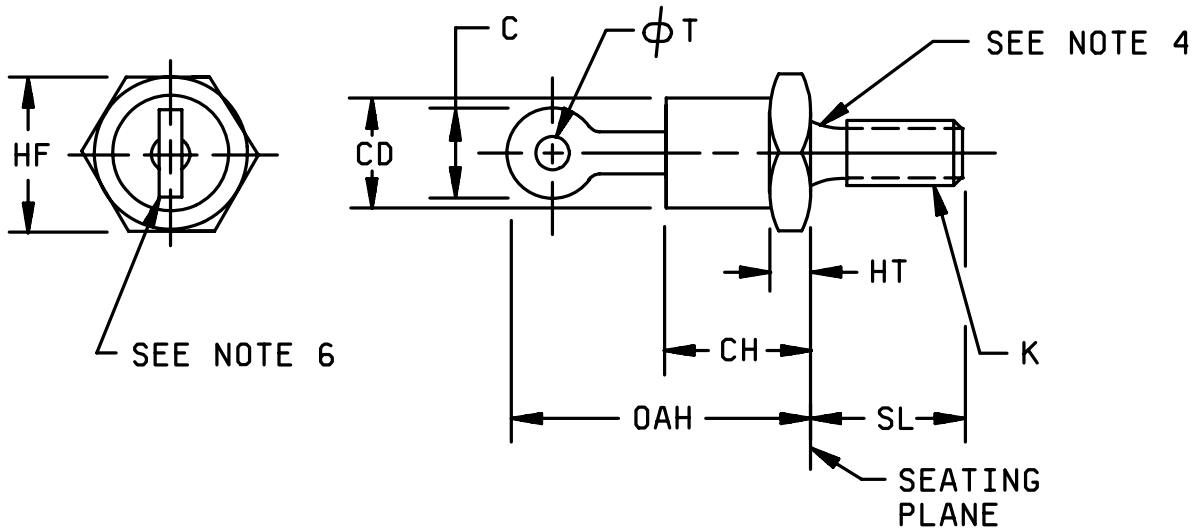


**FIGURE 2**  
**TYPICAL REVERSE CHARACTERISTICS**



## 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  $\phi x$  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
$\phi T$	.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.

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