



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



HIGH RELIABILITY SILICON POWER RECTIFIER

Qualified per MIL-PRF-19500/246

- Glass Passivated Die
- Glass to Metal Header Construction
- VRRM to 1000V
- 1600 Amps Surge Rating

DEVICES

1N3289	1N3294	1N3289R	1N3294R
1N3291	1N3295	1N3291R	1N3295R
1N3293		1N3293R	

LEVELS
JAN
JANTX
JANTXV

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

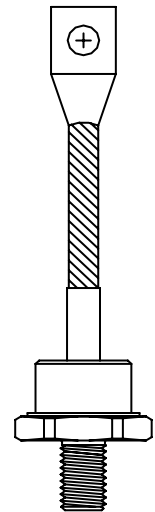
Parameters / Test Conditions	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V _{RWM}	200	V
1N3289 1N3289R		400	
1N3291 1N3291R		600	
1N3293 1N3293R		800	
1N3294 1N3294R		1000	
Average Forward Current, T _C = 134°	I _F	100	A
Peak Surge Forward Current @ t _p = 8.3ms, half sinewave, T _C = 150°C	I _{FSM}	1600	A
Thermal Resistance, Junction to Case	R _{θJC}	0.4	°C/W
Operating Case Temperature Range	T _j	-65°C to 200°C	°C
Storage Temperature Range	T _{STG}	-65°C to 200°C	°C

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

Parameters / Test Conditions	Symbol	Min.	Max.	Unit	
Forward Voltage I _{FM} = 310A, T _C = 25°C *	V _{FM}		1.55	V	
Reverse Current	I _{RM}		10	mA	
V _{RM} = 200, T _C = 25°C					1N3289 1N3289R
V _{RM} = 400, T _C = 25°C					1N3291 1N3291R
V _{RM} = 600, T _C = 25°C					1N3293 1N3293R
V _{RM} = 800, T _C = 25°C					1N3294 1N3294R
V _{RM} = 1000, T _C = 25°C	1N3295 1N3295R				
Reverse Current	I _{RM}		30	mA	
V _{RM} = 200, T _C = 200°C					1N3289 1N3289R
V _{RM} = 400, T _C = 200°C					1N3291 1N3291R
V _{RM} = 600, T _C = 200°C					1N3293 1N3293R
V _{RM} = 800, T _C = 200°C					1N3294 1N3294R
V _{RM} = 1000, T _C = 200°C	1N3295 1N3295R				

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

Note:



DO-205AA (DO-8)

HIGH RELIABILITY SILICON POWER RECTIFIER

GRAPHS

FIGURE 1

TYPICAL FORWARD CHARACTERISTICS

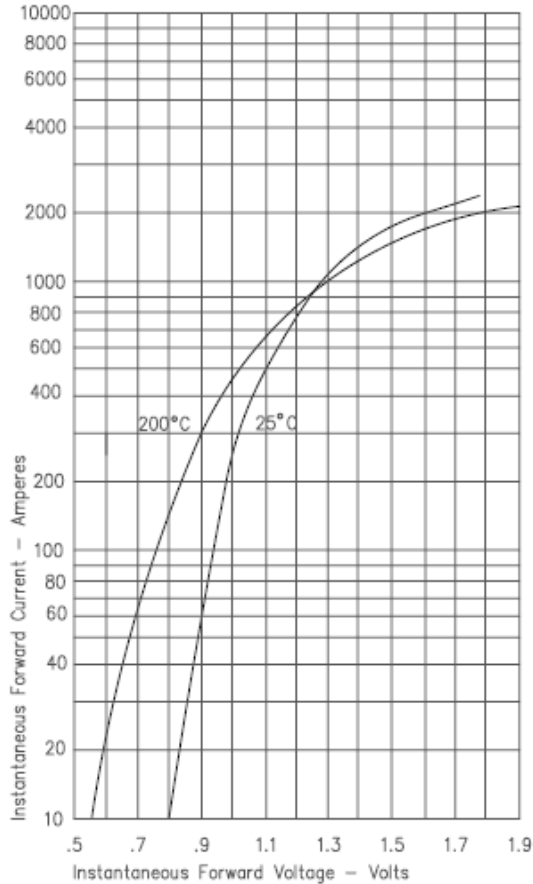


FIGURE 2

TYPICAL REVERSE CHARACTERISTICS

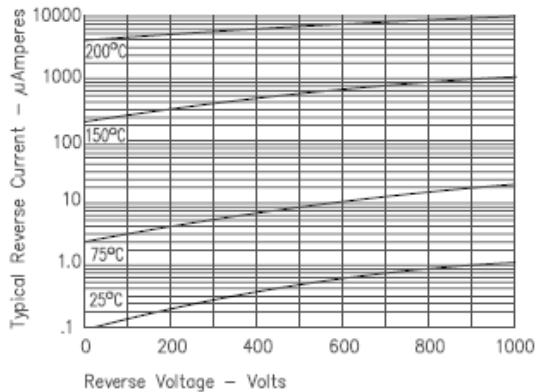


FIGURE 3

FORWARD CURRENT DERATING

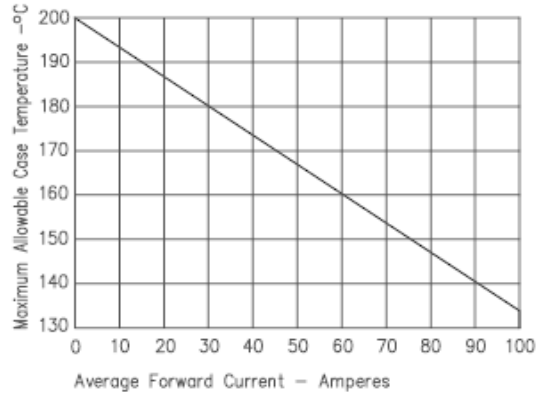


FIGURE 5

TRANSIENT THERMAL IMPEDANCE

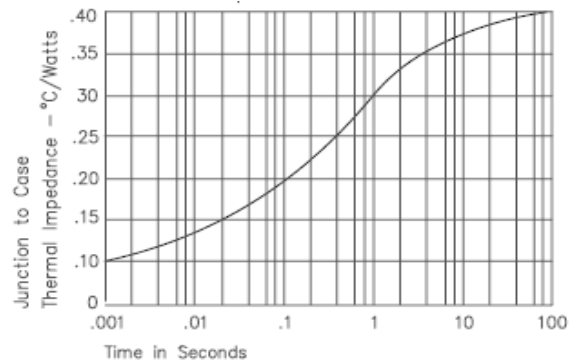
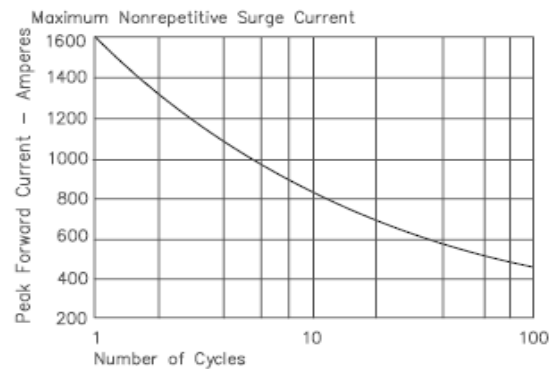


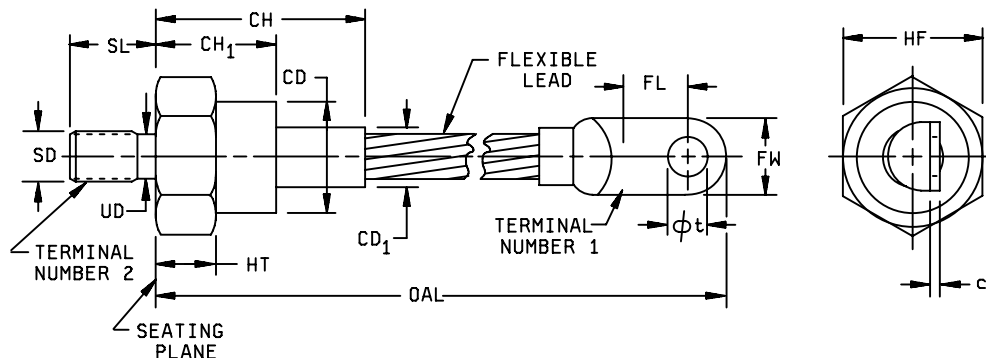
FIGURE 7

MAXIMUM NONREPETITIVE SURGE CURRENT



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PACKAGE DIMENSIONS



NOTES:

1. Dimensions are in inches.
2. Millimeter equivalents are given for general information only.
3. Complete threads to extend to within 2.5 threads of seating plane.
4. 375-24 UNF-2A. Maximum pitch diameter of plated threads shall be basic pitch diameter (.3479 inch (8.837 mm) reference).
5. A chamfer or undercut on one or both ends of hexagonal portions is optional.
6. Minimum flat.
7. For marking (see 3.5).
8. The body of the device, with the exception of the hexagon and flexible lead extensions, lies within cylinder defined by CD₁ and CH, CD₁ not to exceed actual HF.
9. Terminal shape is optional.
10. In accordance with ASME Y14.5M, diameters are equivalent to ϕx symbology.

Symbol	Dimensions				Notes
	Inches		Millimeters		
	Min	Max	Min	Max	
CD	.625	1.000	15.88	25.40	8
CD ₁		.500		12.70	
CH		1.750		44.45	
CH ₁		1.140		28.96	
c	.050	.120	1.27	3.05	
FL	.300	.450	7.62	11.43	6
FW		.670		17.02	
HF	1.031	1.063	26.19	27.00	
HT	.125	.500	3.18	12.70	5
OAL	4.300	5.065	109.22	128.65	
SD					4
SL	.605	.645	15.37	16.38	
UD	.343	.373	8.71	9.47	
ϕt	.250	.310	6.35	7.87	4

Physical dimensions