

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!



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1N5400 - 1N5408

Features

- 3.0 ampere operation at T_A = 75°C with no thermal runaway.
- · High current capability.
- · Low leakage.



General Purpose Rectifiers

Absolute Maximum Ratings* T_A = 25°C unless otherwise noted

Symbol	Parameter	Value				Units					
		5400	5401	5402	5403	5404	5405	5406	5407	5408	
V_{RRM}	Maximum Repetitive Reverse Voltage	50	100	200	300	400	500	600	800	1000	V
$I_{F(AV)}$	Average Rectified Forward Current, .375 " lead length @ T _A = 75°C	3.0					Α				
I _{FSM}	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave	200				А					
T _{stg}	Storage Temperature Range	-55 to +150				°C					
TJ	Operating Junction Temperature	-55 to +150				°C					

^{*}These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

Thermal Characteristics

Symbol	Parameter	Value	Units
P_{D}	Power Dissipation	6.25	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	20	°C/W

Electrical Characteristics $T_A = 25$ °C unless otherwise noted

Symbol	Parameter		Device								Units
			5401	5402	5403	5404	5405	5406	5407	5408	
V_{F}	Forward Voltage @ 3.0 A	1.2								V	
I _{rr}	Maximum Full Load Reverse Current, Full Cycle T _A = 105°C	0.5				mA					
I _R	Reverse Current @ rated V_R $T_A = 25^{\circ}C$ $T_{\Delta} = 100^{\circ}C$ 5.0 500					μ Α μ Α					
C_T	Toatal Capacitance $V_R = 4.0 \text{ V}, f = 1.0 \text{ MHz}$	30				pF					

General Purpose Rectifiers

(continued)

Typical Characteristics

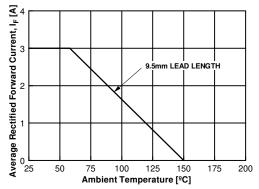


Figure 1. Forward Current Derating Curve

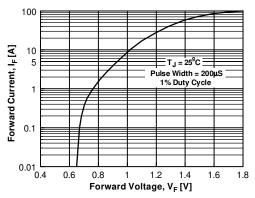


Figure 2. Forward Voltage Characteristics

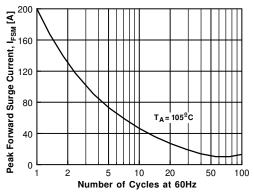


Figure 3. Non-Repetitive Surge Current

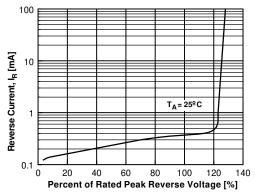


Figure 4. Reverse Current vs Reverse Voltage

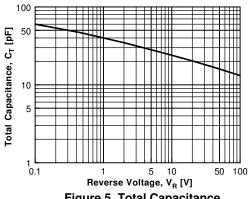


Figure 5. Total Capacitance

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PRODUCT STATUS DEFINITIONS

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Datasheet Identification	Product Status	Definition					
Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.					
Preliminary First Production		This datasheet contains preliminary data, and supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.					
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