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

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Silicon Standard Recovery Diode

V_{RRM} = 200 V - 1400 V
I_F =150 A

Features

- High Surge Capability
- Types up to 1400 V V_{RRM}

DO-8 Package

Standard

"R" Orientation

Maximum ratings, at T_j = 25 °C, unless otherwise specified ("R" devices have leads reversed)

Parameter	Symbol	Conditions	1N4594(R)	1N4595(R)	1N4596(R)	Unit
Repetitive peak reverse voltage	V_{RRM}		1000	1200	1400	V
DC blocking voltage	V_{DC}		1000	1200	1400	V
Continuous forward current	I_F	$T_C \leq 110$ °C	150	150	150	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	T_C = 25 °C, t_p = 8.3 ms	3000	3000	3000	A
I_2t for fusing	I_2t	60 Hz Half wave	37200	37200	37200	A^2sec
Operating temperature	T_j		-60 to 200	-60 to 200	-60 to 200	°C
Storage temperature	T_{stg}		-60 to 200	-60 to 200	-60 to 200	°C

Electrical characteristics, at Tj = 25 °C, unless otherwise specified

Parameter	Symbol	Conditions	1N4594(R)	1N4595(R)	1N4596(R)	Unit
Diode forward voltage	V_F	I_F = 150 A, T_j = 110 °C	1.5	1.5	1.5	V
Reverse current	I_R	$V_R = V_{RRM}$, T_j = 110 °C	4.5	4	3.5	mA
Thermal characteristics						
Thermal resistance, junction - case	R_{thJC}		0.35	0.35	0.35	°C/W

Electrical Characteristics

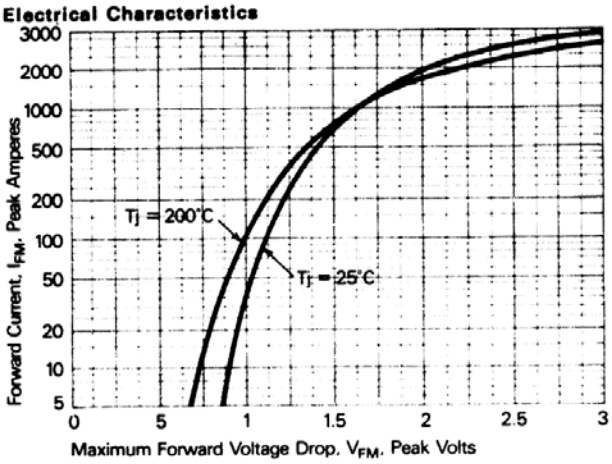

Figure 1. Forward current vs. Forward voltage.

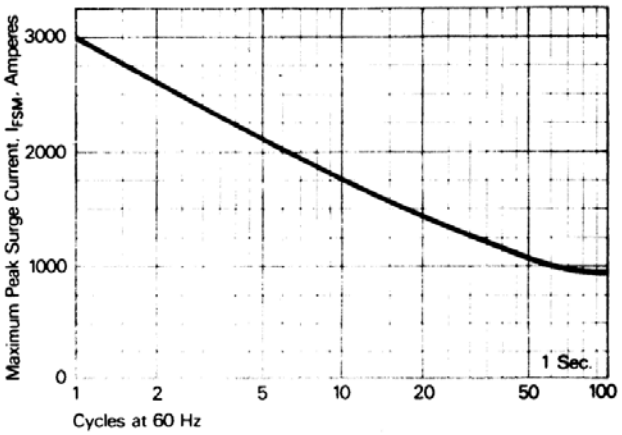

Figure 2. Maximum allowable surge current at rated load conditions.

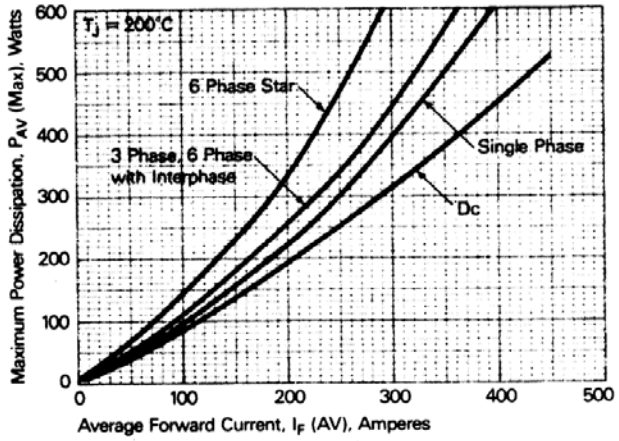

Figure 3. Power dissipation vs. Average forward current.

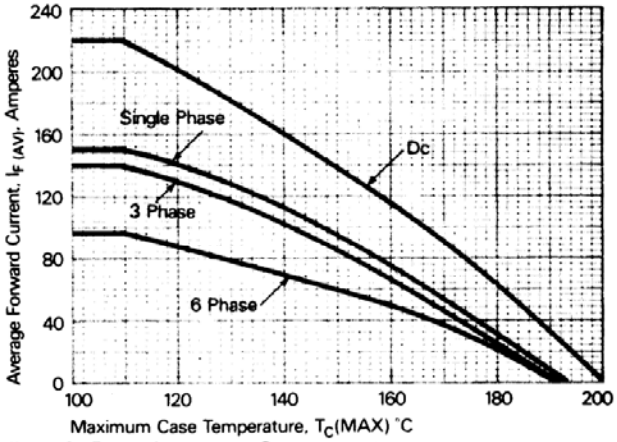

Figure 4. Forward current vs. Case temperature.