



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](mailto:info@chipsmall.com) Web: [www.chipsmall.com](http://www.chipsmall.com)

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



## Silicon Standard Recovery Diode

$V_{RRM} = 800\text{ V} - 1600\text{ V}$

$I_F = 400\text{ A}$

### Features

- High Surge Capability
- Types up to 1600 V  $V_{RRM}$

DO-9 Package



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

Parameter	Symbol	Conditions	S400K (R)	S400Q (R)	S400Y (R)	Unit
Repetitive peak reverse voltage	$V_{RRM}$		800	1200	1600	V
RMS reverse voltage	$V_{RMS}$		566	848	1131	V
DC blocking voltage	$V_{DC}$		800	1200	1600	V
Continuous forward current	$I_F$	$T_C \leq 120\text{ °C}$	400	400	400	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ °C}$ , $t_p = 8.3\text{ ms}$	8640	8640	8640	A
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

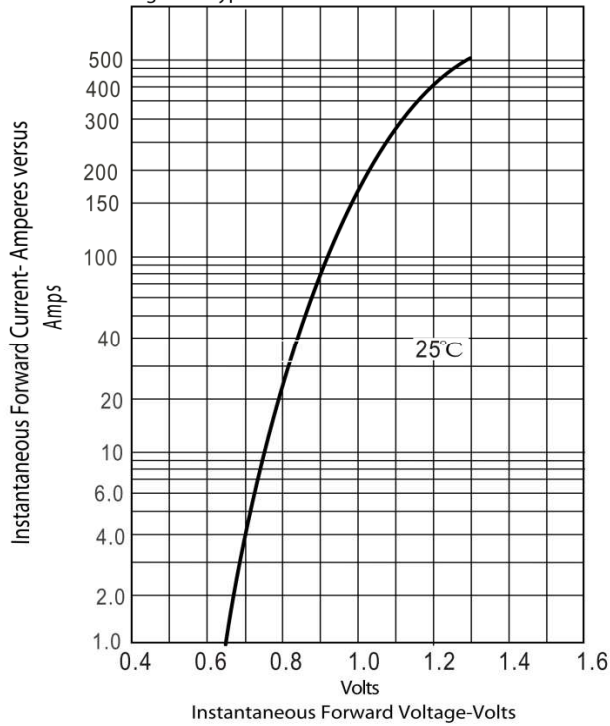
Electrical characteristics, at  $T_j = 25\text{ °C}$ , unless otherwise specified

Parameter	Symbol	Conditions	S400K (R)	S400Q (R)	S400Y (R)	Unit
Diode forward voltage	$V_F$	$I_F = 400\text{ A}$ , $T_j = 25\text{ °C}$	1.2	1.2	1.2	V
Reverse current	$I_R$	$V_R = 50\text{ V}$ , $T_j = 25\text{ °C}$	10	10	10	μA
		$V_R = 50\text{ V}$ , $T_j = 175\text{ °C}$	12	12	12	mA

### Thermal characteristics

Thermal resistance, junction - case	$R_{thJC}$		0.14	0.14	0.14	°C/W
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Figure.1-Typical Forward Characteristics



Figur.2-Forward Derating Curve

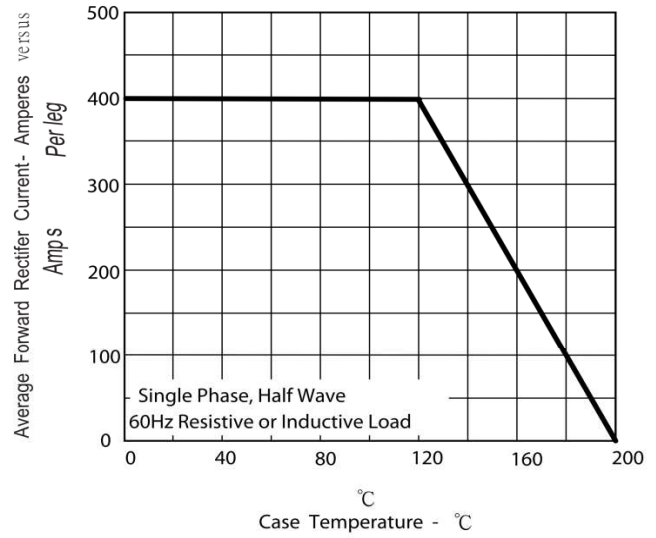
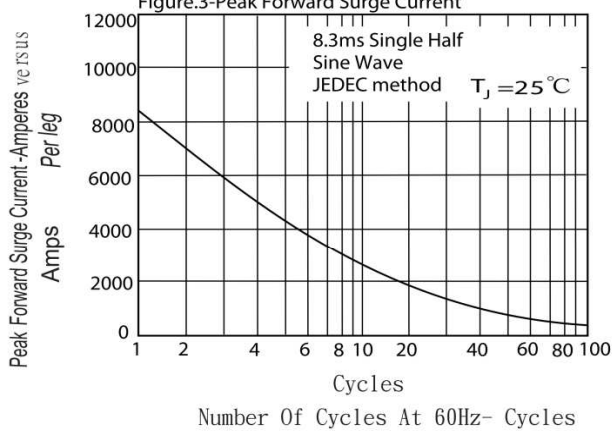


Figure.3-Peak Forward Surge Current



Figur.4-Typical Reverse Characteristics

