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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Silicon Standard Recovery Diode

V_{RRM} = 100 V - 1600 V
I_F =85 A

Features

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

DO-5 Package

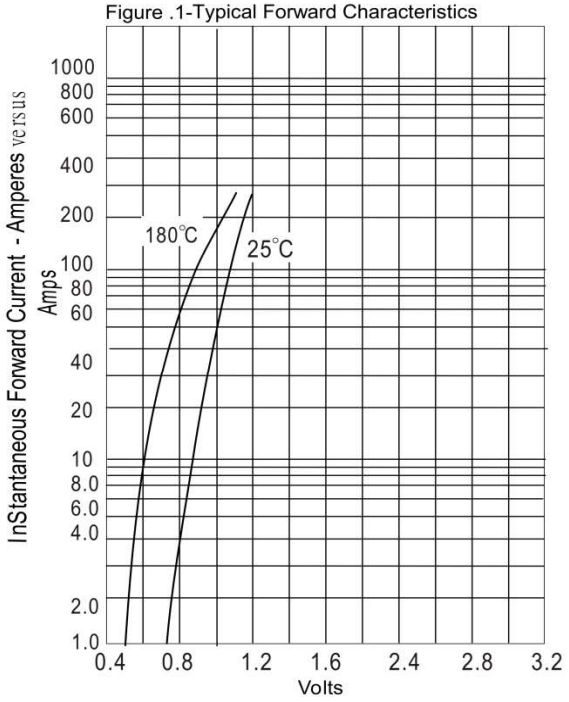
Maximum ratings, at T_j = 25 °C, unless otherwise specified ("R" devices have leads reversed)

Parameter	Symbol	Conditions	S85B (R)	S85D (R)	S85G (R)	S85J (R)	Unit
Repetitive peak reverse voltage	V_{RRM}		100	200	400	600	V
RMS reverse voltage	V_{RMS}		70	140	280	420	V
DC blocking voltage	V_{DC}		100	200	400	600	V
Continuous forward current	I_F	$T_C \leq 140$ °C	85	85	85	85	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	T_C = 25 °C, t_p = 8.3 ms	1800	1800	1800	1800	A
Operating temperature	T_j		-65 to 180	-65 to 180	-65 to 180	-65 to 180	°C
Storage temperature	T_{stg}		-65 to 180	-65 to 180	-65 to 180	-65 to 180	°C

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

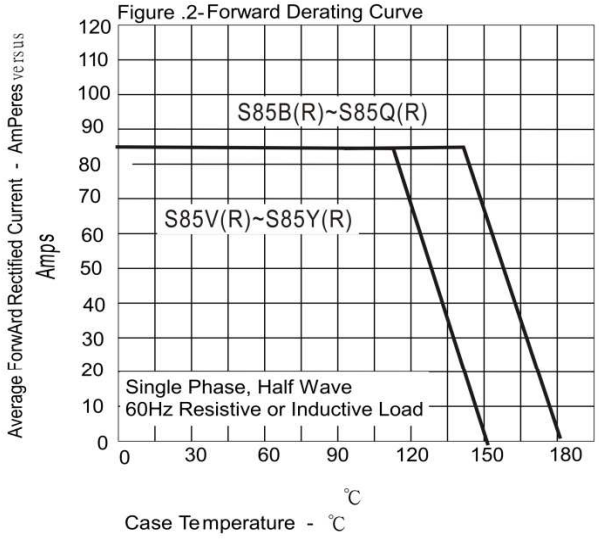
Parameter	Symbol	Conditions	S85B (R)	S85D (R)	S85G (R)	S85J (R)	Unit
Diode forward voltage	V_F	I_F = 85 A, T_j = 25 °C	1.1	1.1	1.1	1.1	V
Reverse current	I_R	V_R = 100 V, T_j = 25 °C	10	10	10	10	µA
		V_R = 100 V, T_j = 180 °C	15	15	15	9	mA
Thermal characteristics							
Thermal resistance, junction - case	R_{thJC}		0.65	0.65	0.65	0.65	°C/W

Figure .1-Typical Forward Characteristics



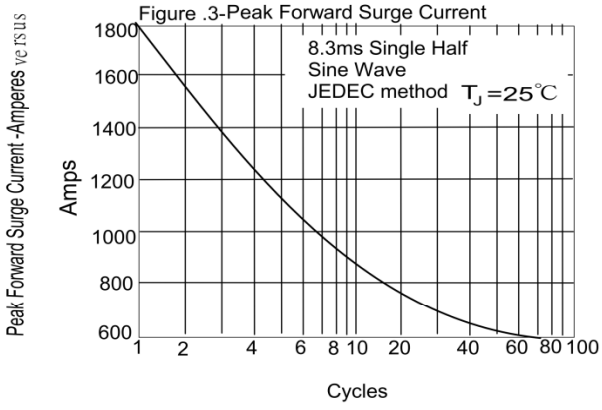
Instantaneous Forward Voltage - Volts

Figure .2-Forward Derating Curve



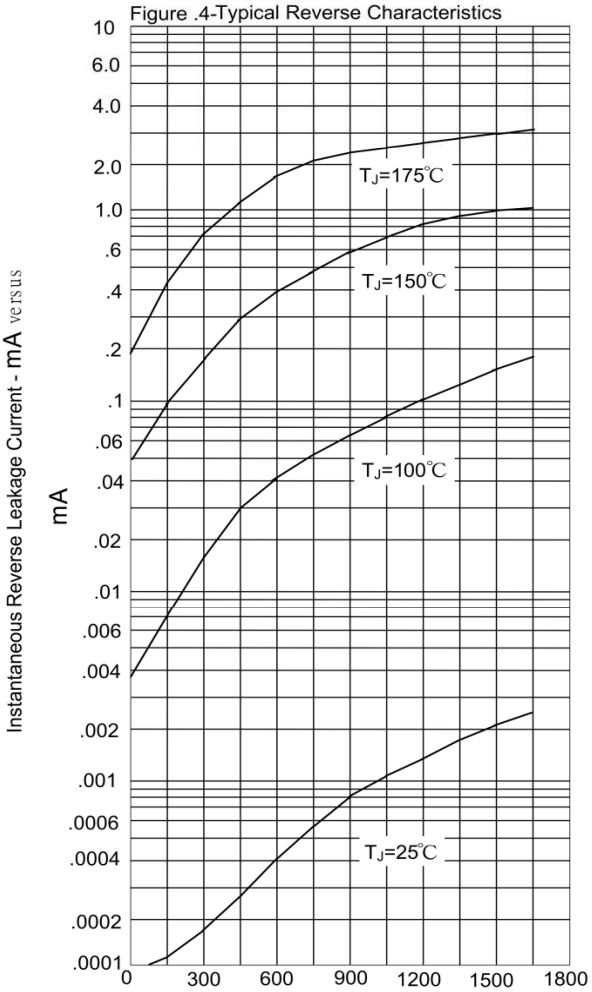
Case Temperature - ℃

Figure .3-Peak Forward Surge Current



Number Of Cycles At 60Hz - Cycles

Figure .4-Typical Reverse Characteristics



Reverse Voltage - Volts