



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 Fast Recovery Diode

 $V_{RRM} = 100\text{ V} - 1000\text{ V}$
 $I_F = 40\text{ A}$

Features

- High Surge Capability
- Types up to 1000 V V_{RRM}

DO-5 Package

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

Parameter	Symbol	Conditions	FR40K(R)05	FR40M(R)05	Unit
Repetitive peak reverse voltage	V_{RRM}		800	1000	V
RMS reverse voltage	V_{RMS}		560	700	V
DC blocking voltage	V_{DC}		800	1000	V
Continuous forward current	I_F	$T_C \leq 100\text{ °C}$	40	40	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ °C}$, $t_p = 8.3\text{ ms}$	500	500	A
Operating temperature	T_j		-40 to 125	-40 to 125	°C
Storage temperature	T_{stg}		-40 to 150	-40 to 150	°C

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

Parameter	Symbol	Conditions	FR40K(R)05	FR40M(R)05	Unit
Diode forward voltage	V_F	$I_F = 40\text{ A}$, $T_j = 25\text{ °C}$	1.4	1.4	V
Reverse current	I_R	$V_R = 100\text{ V}$, $T_j = 25\text{ °C}$	25	25	μA
		$V_R = 100\text{ V}$, $T_j = 125\text{ °C}$	10	10	mA

Recovery Time

Maximum reverse recovery time	T_{RR}	$I_F = 0.5\text{ A}$, $I_R = 1.0\text{ A}$, $I_{RR} = 0.25\text{ A}$	500	500	nS
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Thermal characteristics

Thermal resistance, junction - case	R_{thJC}		0.8	0.8	°C/W
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Figure .1-Typical Forward Characteristics

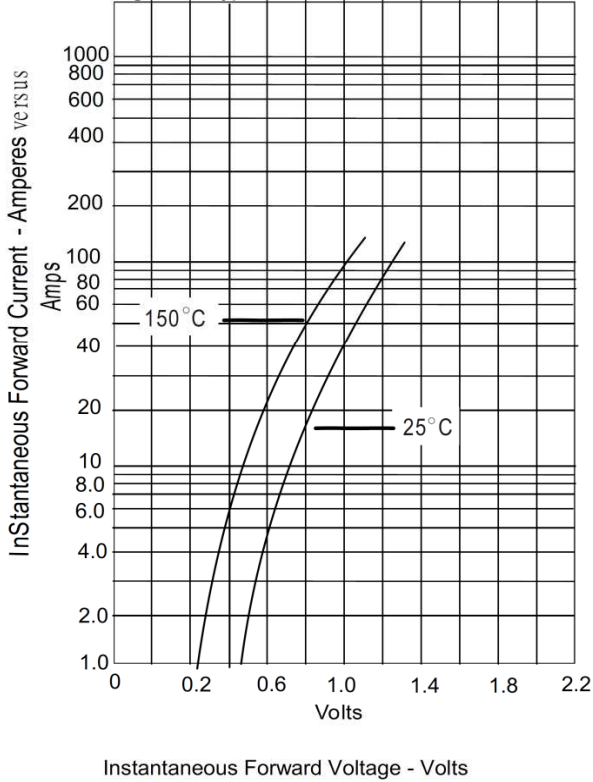


Figure .2-Forward Derating Curve

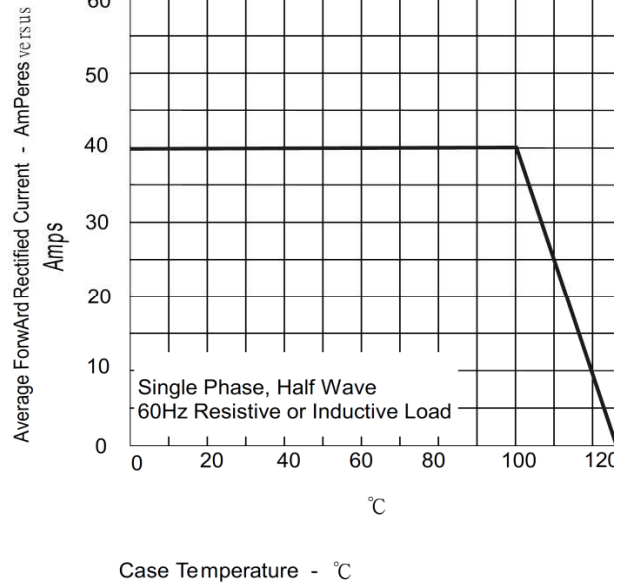


Figure .3-Peak Forward Surge Current

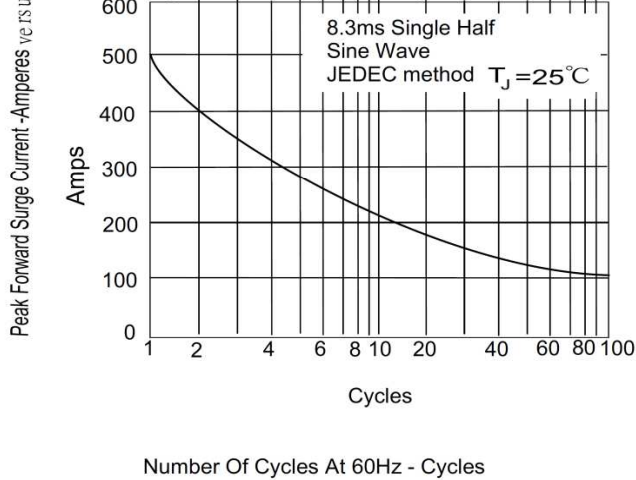


Figure .4-Typical Reverse Characteristics

