



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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SOT23 SILICON HIGH CURRENT SCHOTTKY BARRIER DIODE "SuperBAT"

ZHCS1006

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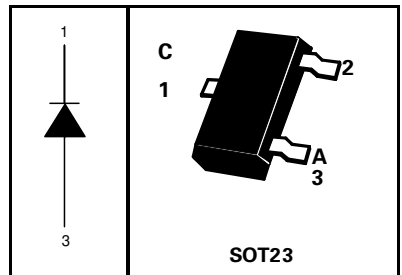
FEATURES:

- High current capability
- Low V_F

APPLICATIONS:

- Mobile telecomms, PCMCIA & SCSI
- DC-DC Conversion

PARTMARKING DETAILS : S16



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Continuous Reverse Voltage	V_R	60	V
Forward Current	I_F	900	mA
Forward Voltage @ $I_F = 1000\text{mA}$ (typ)	V_F	600	mV
Average Peak Forward Current;D.C.= 50%	I_{FAV}	1600	mA
Non Repetitive Forward Current $t \leq 100\mu\text{s}$ $t \leq 10\text{ms}$	I_{FSM}	12 5	A A
Power Dissipation at $T_{amb} = 25^\circ\text{C}$	P_{tot}	500	mW
Storage Temperature Range	T_{stg}	-55 to + 150	$^\circ\text{C}$
Junction Temperature	T_j	125	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^\circ\text{C}$ unless otherwise stated).

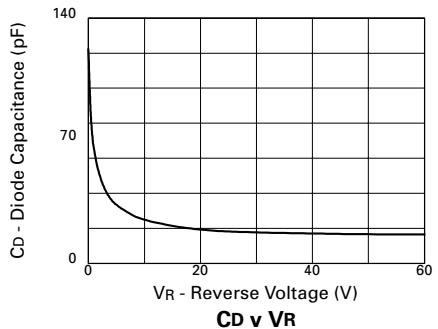
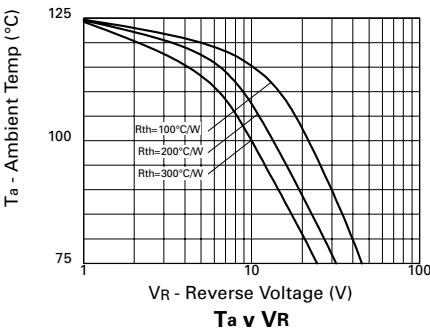
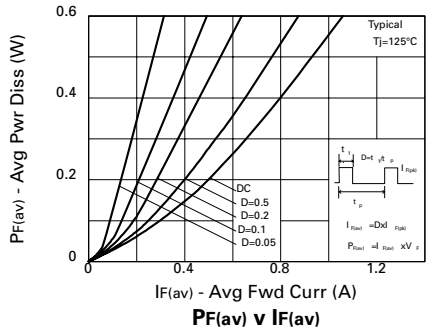
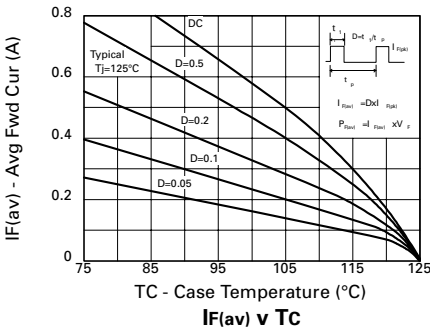
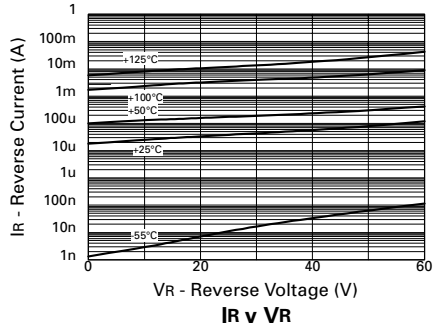
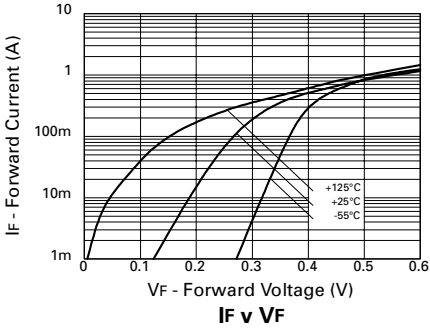
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Reverse Breakdown Voltage	$V_{(BR)R}$	60	80		V	$I_R = 300\mu\text{A}$
Forward Voltage	V_F		245 275 330 395 455 510 620	280 320 390 470 530 600 740	mV mV mV mV mV mV mV	$I_F = 50\text{mA}^*$ $I_F = 100\text{mA}^*$ $I_F = 250\text{mA}^*$ $I_F = 500\text{mA}^*$ $I_F = 750\text{mA}^*$ $I_F = 1000\text{mA}^*$ $I_F = 1500\text{mA}^*$
Reverse Current	I_R		50	100	μA	$V_R = 45\text{V}$
Diode Capacitance	C_D		17		pF	$f = 1\text{MHz}, V_R = 25\text{V}$
Reverse Recovery Time	t_{rr}		12		ns	switched from $I_F = 500\text{mA}$ to $I_R = 50\text{mA}$ Measured at $I_R = 50\text{mA}$

*Measured under pulsed conditions. Pulse width= 300 μs . Duty cycle $\leq 2\%$

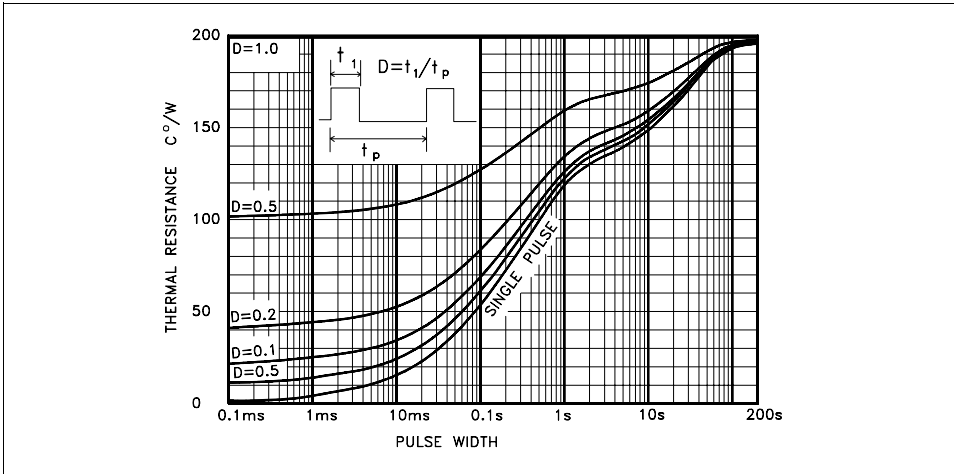
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TYPICAL CHARACTERISTICS

TYPICAL CHARACTERISTICS



TYPICAL CHARACTERISTICS



MAXIMUM TRANSIENT THERMAL RESISTANCE

* Reference above figure, devices were mounted on a 15mmx15mm ceramic substrate.