

SOD323 SILICON HIGH CURRENT SCHOTTKY BARRIER DIODE "SuperBAT"

FEATURES

- Low V_F
- High current capability
- Miniature surface mount package

APPLICATIONS

- DC - DC converters
- Mobile telecomms
- PCMCIA

DEVICE MARKING

- Partmark detail - BD

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Continuous Reverse Voltage	V_R	40	V
Forward Current (Continuous)	I_F	400	mA
Forward Voltage @ $I_F = 400\text{mA}$	V_F	500	mV
Average Peak Forward Current; D.C. = 50%	I_{FAV}	1000	mA
Non Repetitive Forward Current	I_{FSM}	$t \leq 100\mu\text{s}$	6.75
		$t \leq 10\text{ms}$	3
Power Dissipation at $T_{amb} = 25^\circ\text{C}$	P_{tot}	250	mW
Storage Temperature Range	T_{stg}	-55 to +150	$^\circ\text{C}$
Junction Temperature	T_j	125	$^\circ\text{C}$



PINOUT - TOP VIEW



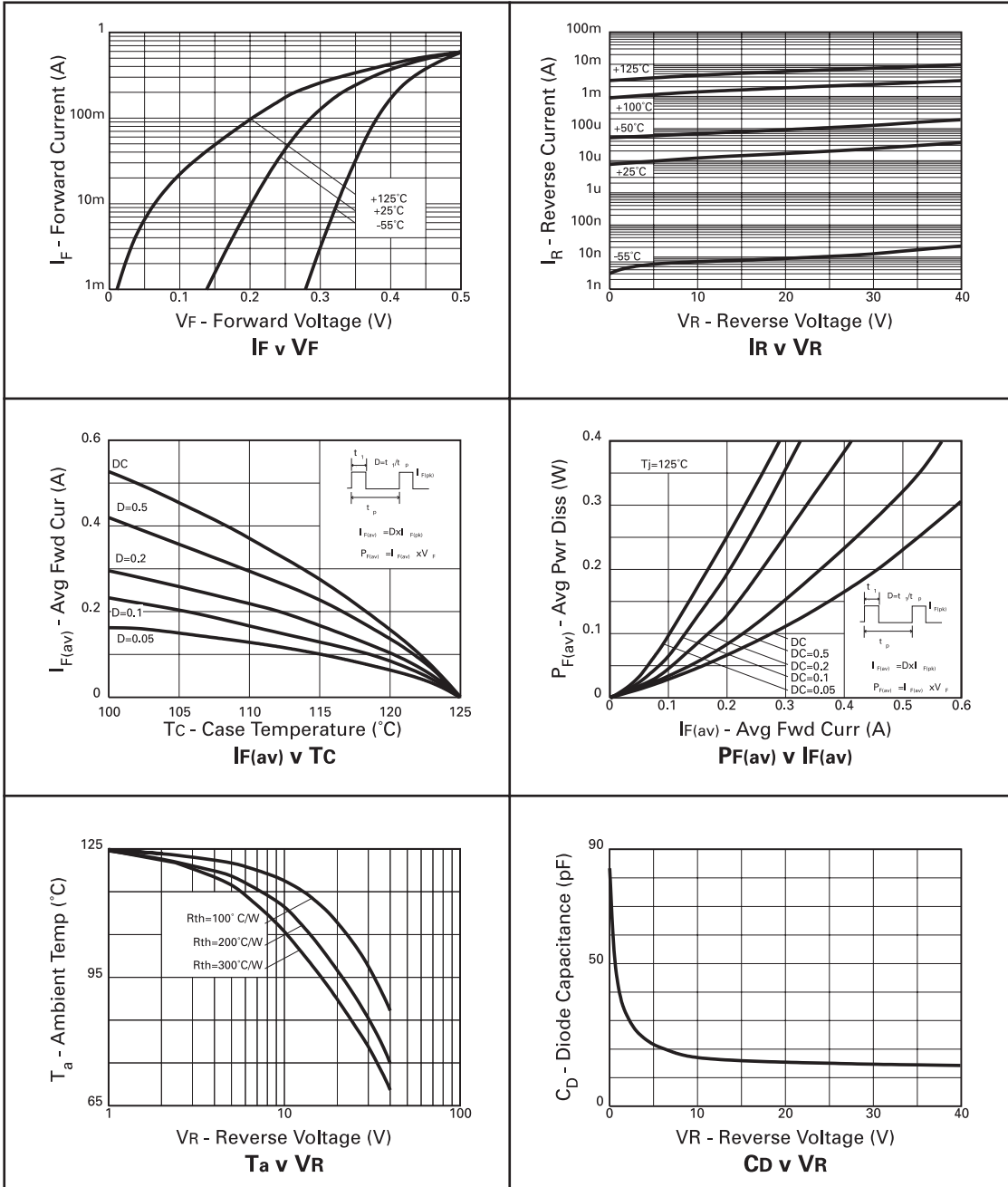
Partmark is for example only

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS
Reverse Breakdown Voltage	$V_{(BR)R}$	40	60		V	$I_R = 200\mu\text{A}$
Forward Voltage	V_F		270	300	mV	$I_F = 50\text{mA}$
			300	350	mV	$I_F = 100\text{mA}$
			370	460	mV	$I_F = 250\text{mA}$
			425	500	mV	$I_F = 400\text{mA}$
			550	670	mV	$I_F = 750\text{mA}$
			640	780	mV	$I_F = 1000\text{mA}$
			810	1050	mV	$I_F = 1500\text{mA}$
			440		mV	$I_F = 500\text{mA}, T_{amb} = 100^\circ\text{C}$
Reverse Current	I_R		15	40	μA	$V_R = 30\text{V}$
Diode Capacitance	C_D		20		pF	$f = 1\text{MHz}, V_R = 25\text{V}$
Reverse Recovery Time	t_{rr}		10		ns	switched from $I_F = 500\text{mA}$ to $I_R = 500\text{mA}$ Measured at $I_R = 50\text{mA}$

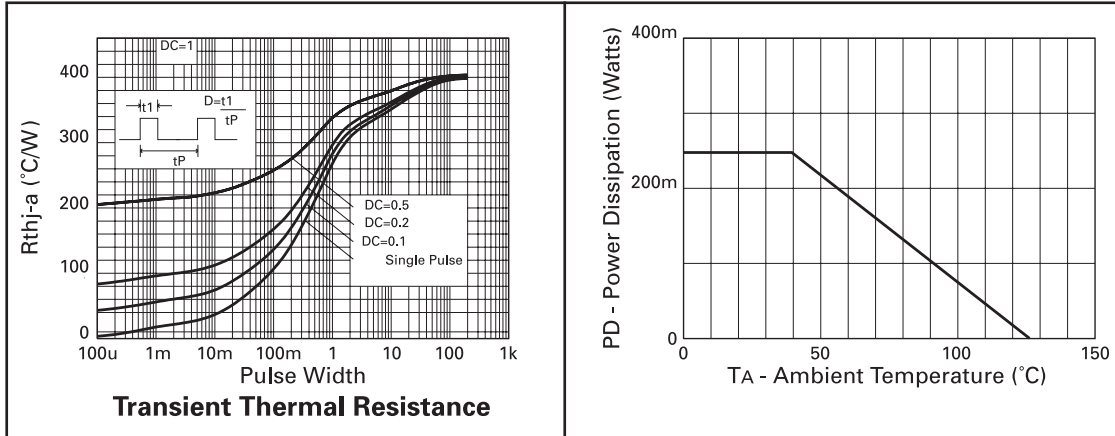
ZHCS400

TYPICAL CHARACTERISTICS



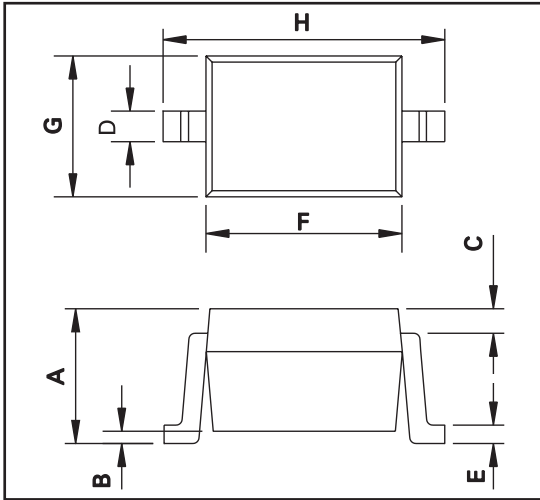
ZHCS400

TYPICAL CHARACTERISTICS (Cont.)



ZHCS400

PACKAGE OUTLINE



PACKAGE DIMENSIONS

DIM	Millimeters		DIM	Millimeters	
	Min	Max		Min	Max
A	0.91	1.16	E	0.127	0.2
B	-	0.1	F	1.52	1.77
C	-	-	G	1.11	1.37
D	0.33	0.4	H	2.46	2.71

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