

Small Signal Product
SOD-523F $I_{FSM}=4A$ 30V/200mA Schottky Diode
FEATURES

- Low Forward Voltage Drop
- Fast Switching Time
- Surface Mounted Device
- Moisture sensitivity level 1
- Pb free and RoHS compliant
- Halogen-free according to IEC 61249-2-21 definition


MECHANICAL DATA

- Case: Flat lead SOD-523F package
- High temperature soldering guaranteed: 260°C/10s
- Weight: 9.9mg (approximately)

SOD-523F
APPLICATION

- Portable consumer electronic devices

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Working Peak Reverse Voltage	V_{RWM}	30	V
DC Blocking Voltage	V_R	30	V
RMS Reverse Voltage	$V_{R(RMS)}$	21	V
Forward Continuous Current	I_{FM}	200	mA
Peak Forward Surge Current @ $t < 10\text{ms}$	I_{FSM}	4	A
Repetitive Peak Forward Current @ $t < 1.0\text{s}$	I_{FRM}	500	mA
Power Dissipation	P_D	200	mW
Thermal Resistance form Junction to Ambient	R_{thJA}	500	$^\circ\text{C/W}$
Junction Temperature	T_J	125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 55 to + 150	$^\circ\text{C}$

PARAMETER	TEST CONDITION	SYMBOL	MIN	MAX	UNIT
Reverse Breakdown Voltage	at $I_R = 10 \mu\text{A}$	$V_{(BR)}$	30		V
Reverse Current	at $V_R = 25 \text{V}$	I_R		0.5	μA
Forward Voltage	at $I_F = 2\text{mA}$	V_F	0.26	0.33	V
	at $I_F = 15\text{mA}$			0.45	
	at $I_F = 200\text{mA}$			1	V
Capacitance Between Terminals	$V_R=1\text{V}$, $f=1.0\text{MHz}$	C_T	--	10	pF
Reverse Recovery Time	$I_F=I_R=10\text{mA}$ $I_{rr}=0.1I_R$, $R_L=100\Omega$	t_{rr}	--	5	ns

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RATINGS AND CHARACTERISTICS CURVES

($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig.1 Typical Forward Characteristics

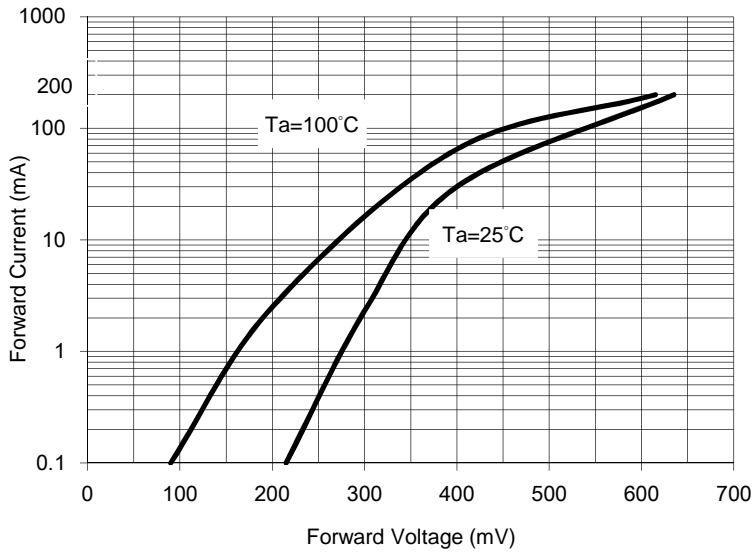


Fig. 2 Typical Reverse Characteristics

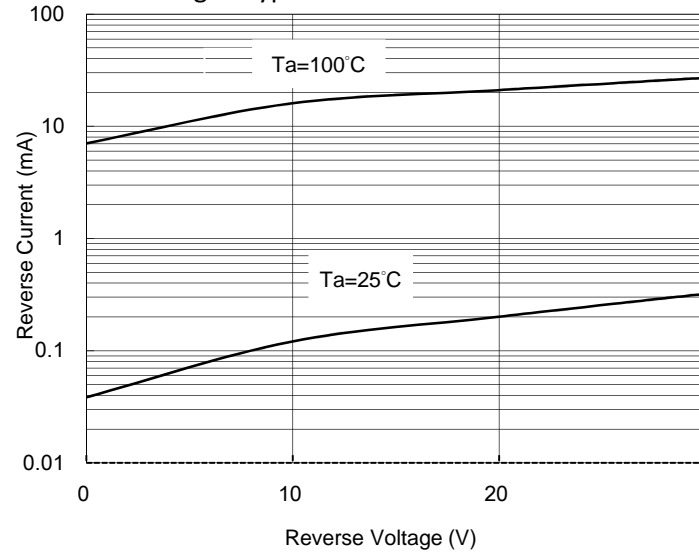


Fig. 3 Power Derating Curve

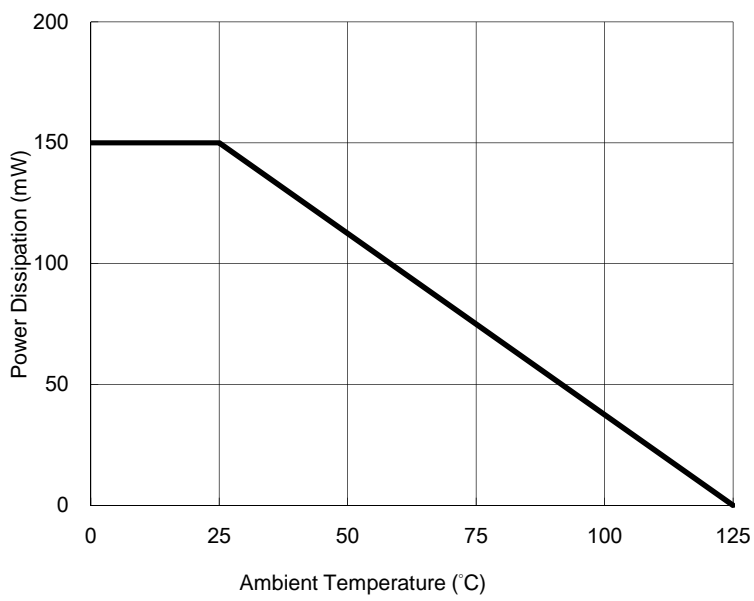
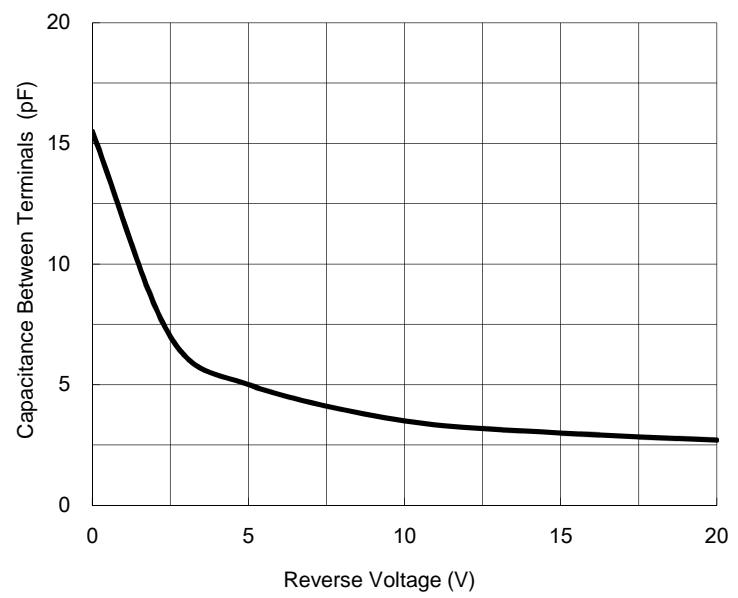


Fig. 4 Typical Capacitance Characteristics



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ORDERING INFORMATION

PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING	MARKING
BAT43X	(Note)	RS	G	SOD-523F	8K / 7" Reel	S8

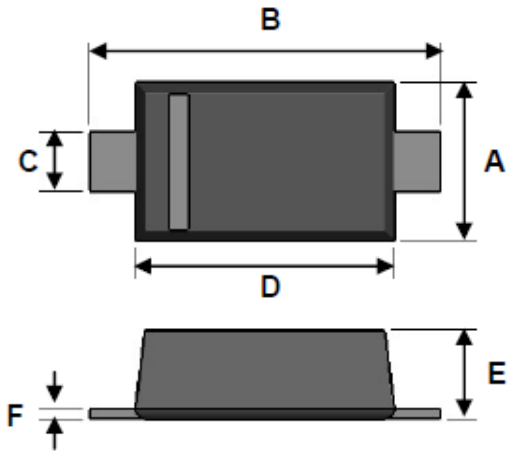
Note: Indicator of manufacturing site for manufacture special control, if empty means no special control requirement

EXAMPLE

PREFERRED P/N	PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
BAT43X RSG	BAT43X		RS	G	Green compound
BAT43X-M0 RSG	BAT43X	M0	RS	G	Green compound

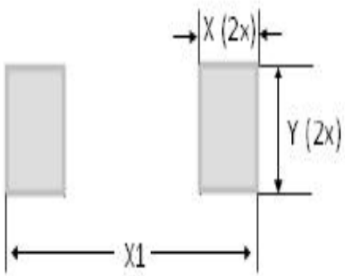
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**PACKAGE OUTLINE DIMENSIONS
SOD-523F**



DIM.	Unit (mm)		Unit (inch)	
	Min.	Max.	Min.	Max.
A	0.70	0.90	0.028	0.035
B	1.50	1.70	0.059	0.067
C	0.25	0.40	0.010	0.016
D	1.10	1.30	0.043	0.051
E	0.50	0.77	0.020	0.030
F	0.07	0.20	0.003	0.008

SUGGEST PAD LAYOUT



DIM.	Unit (mm)	Unit (inch)
	Typ.	Typ.
X	0.60	0.024
X1	2.30	0.091
Y	0.80	0.031

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