

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°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< 10ms	I _{FSM}	4	A
Repetitive Peak Forward Current @t< 1.0s	I _{FRM}	500	mA
Power Dissipation	P _D	200	mW
Thermal Resistance form Junction to Ambient	R _{thJA}	500	°C/W
Junction Temperature	T _J	125	°C
Storage Temperature Range	T _{STG}	- 55 to + 150	°C

PARAMETER	TEST CONDITION	SYMBOL	MIN	MAX	UNIT
Reverse Breakdown Voltage	at I _R = 10 μA	V _(BR)	30		V
Reverse Current	at V _R = 25 V	I _R		0.5	μA
Forward Voltage	at I _F = 2mA	V _F	0.26	0.33	V
	at I _F = 15mA			0.45	
	at I _F = 200mA			1	V
Capacitance Between Terminals	V _R =1V, f=1.0MHz	C _T	--	10	pF
Reverse Recovery Time	I _F =I _R =10mA I _{rr} =0.1X I _R , R _L =100Ω	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

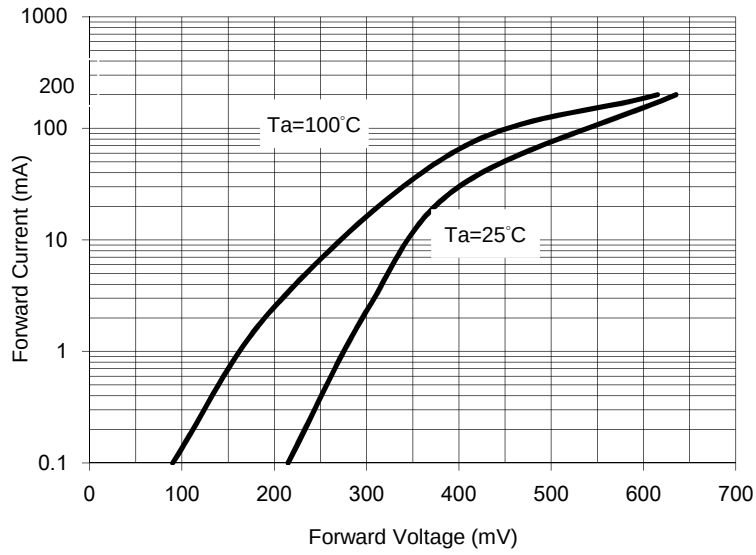


Fig. 2 Typical Reverse Characteristics

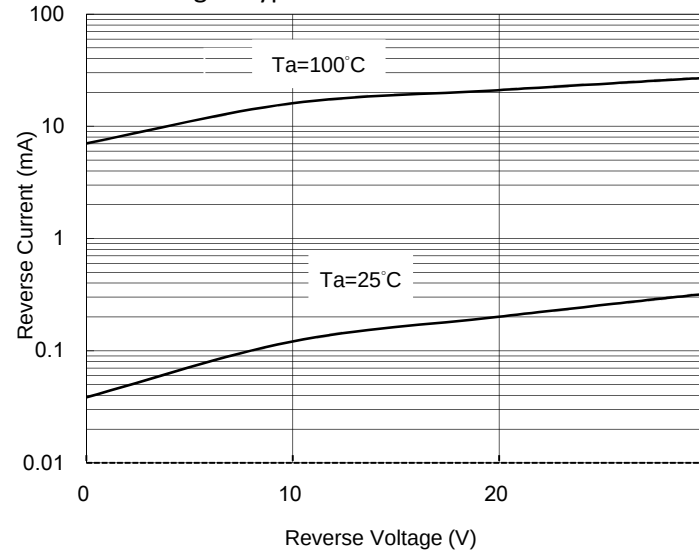


Fig. 3 Power Derating Curve

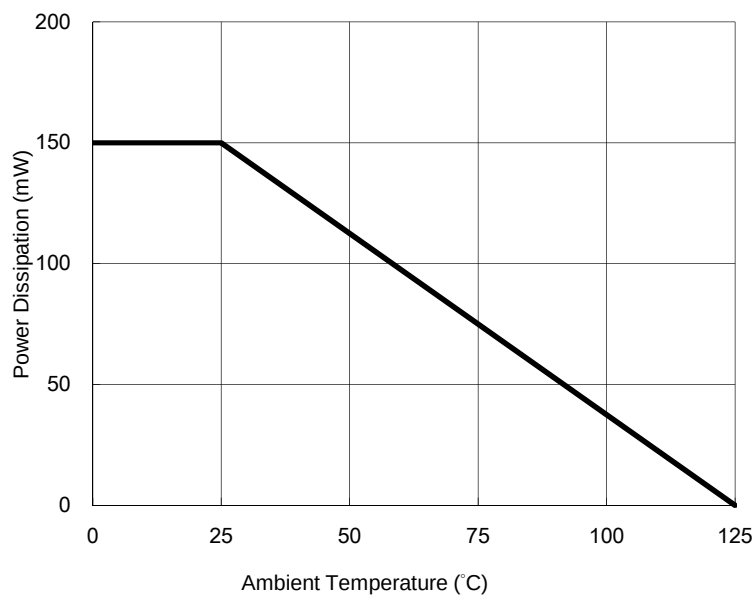
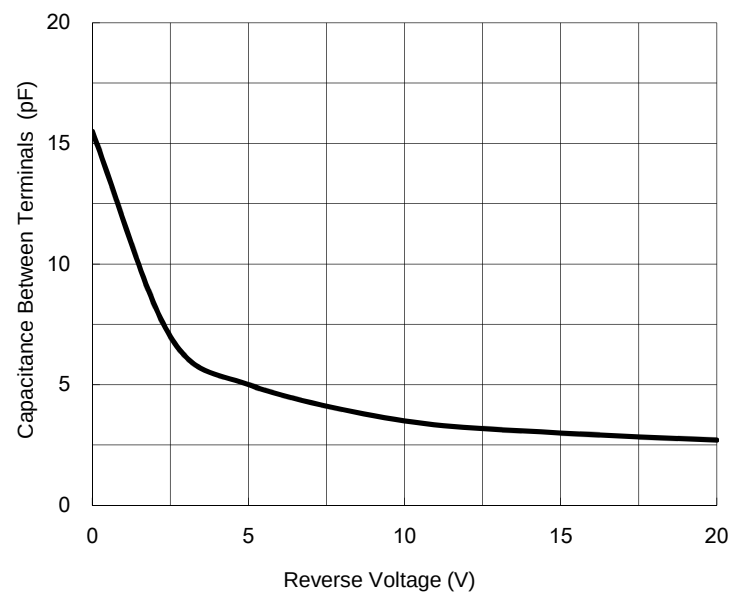


Fig. 4 Typical Capacitance Characteristics



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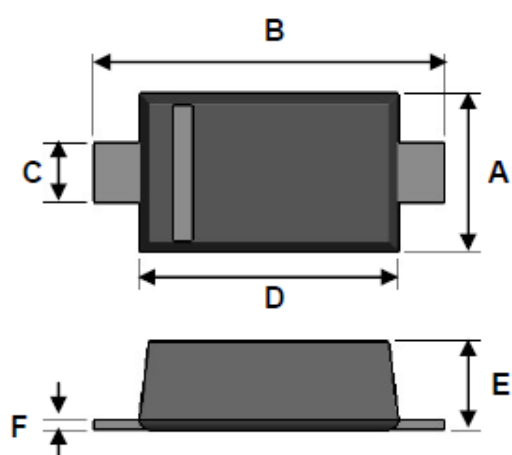
ORDERING INFORMATION						
PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING	MARKING
BAT43X	(Note)	RS	G	SOD-523F	8K / 7" Reel	S8

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

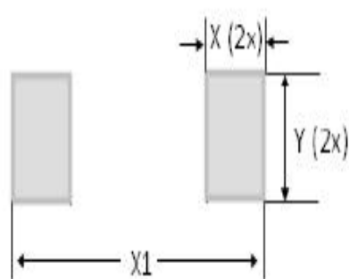
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**PACKAGE OUTLINE DIMENSIONS
SOD-523F**



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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