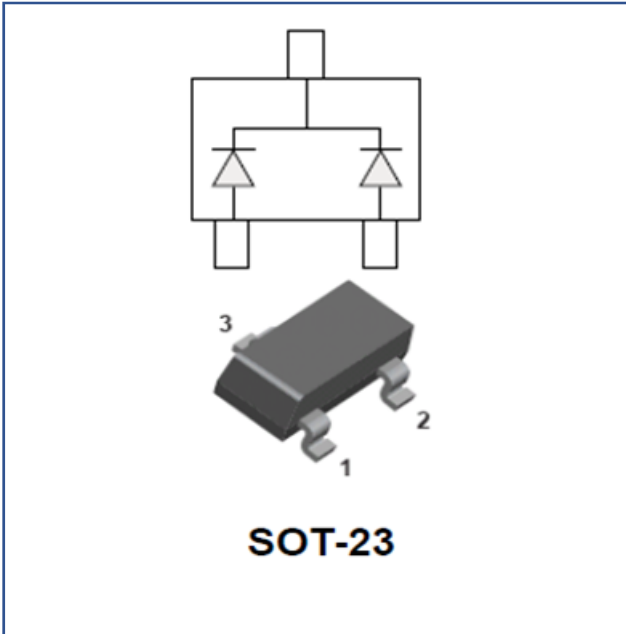


Schottky Barrier Diode



Features

- Moisture sensitivity level 1
- Reverse voltage: 40V
- Average forward current : 500mA

Application

- Low Forward Voltage
- Surface Mount Device

Mechanical data

- **Package:** SOT-23
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

■ Maximum Ratings (T_a=25°C Unless otherwise specified)

PARAMETER	Symbol	Unit	Value
Device marking code			SF3
Repetitive peak reverse voltage	V _{RRM}	V	40
Forward current, per leg	I _F	mA	500
Non-Repetitive Surge peak forward current @ t=8.3ms half-sine wave	I _{FSM}	A	2
Power Dissipation	P _D	mW	300
Junction temperature	T _J	°C	-55 to +125
Storage temperature	T _{STG}	°C	-55 to +125



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■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	Symbol	UNIT	Conditions	Min	TYP	Max
Reverse voltage	V _R	V	IR=100uA	40	-	-
Forward Voltage	V _F	V	IF=10mA	-	-	0.3
			IF=200mA	-	-	0.5
Reverse Leakage Current	I _R	uA	VR=25V	-	-	70
Junction capacitance	C _j	pF	VR=0V,f=1MHz	-	-	100

■ Thermal Characteristics

PARAMETER	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	R _{θJ-A} ⁽¹⁾	°C/W	333

Note:

(1) Thermal resistance from junction to ambient mounted on PCB, single-sided copper, with standard footprint.

■ Characteristics

Fig 1: PD-TA Curve

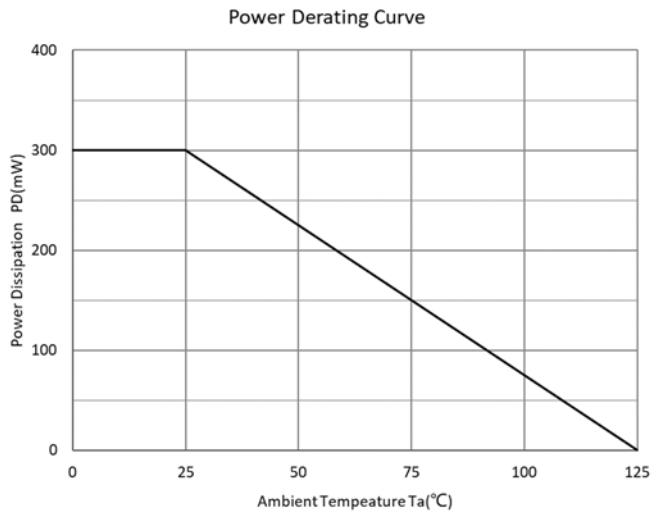


Fig 2: Capacitance Capability

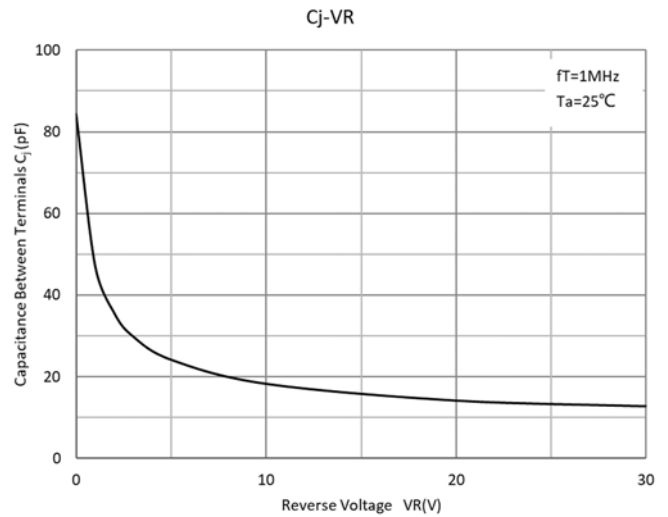


Fig 3: Typical Forward Characteristics

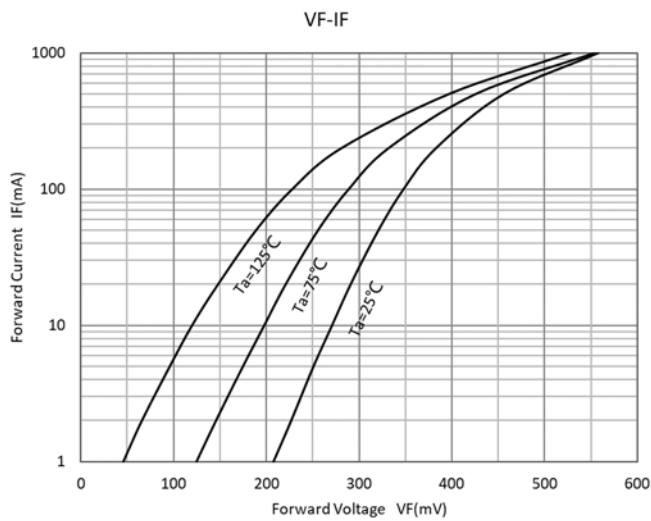
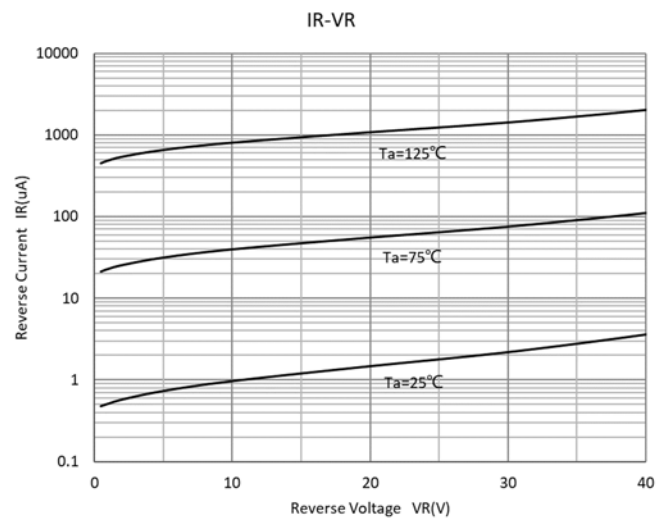


Fig 4: Typical Reverse Characteristics





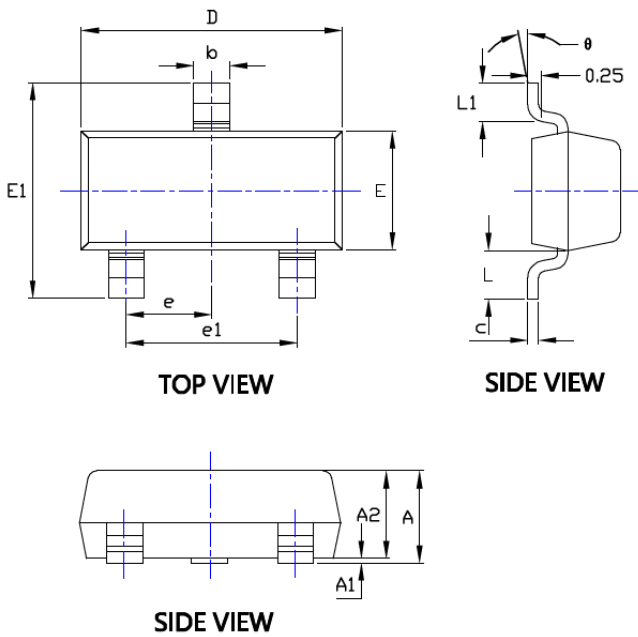
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Ordering Information

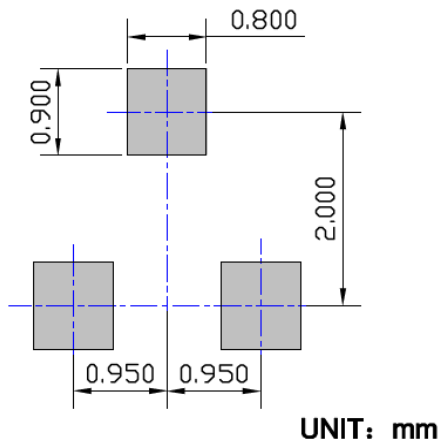
PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SBT0540C	F2	Approximate 0.008	3000	30000	120000	7" reel

Outline Dimensions



SYMBOL	DIMENSIONS			
	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.035	0.045	0.900	1.150
A1	0.000	0.004	0.000	0.100
A2	0.035	0.041	0.900	1.050
b	0.012	0.020	0.300	0.500
c	0.004	0.008	0.100	0.200
D	0.110	0.118	2.800	3.000
E	0.047	0.055	1.200	1.400
E1	0.089	0.100	2.250	2.550
e	0.037TYP		0.950TYP	
e1	0.071	0.079	1.800	2.000
L	0.022REF		0.550REF	
L1	0.012	0.020	0.300	0.500
θ	0°	8°	0°	8°

Suggested Pad Layout





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