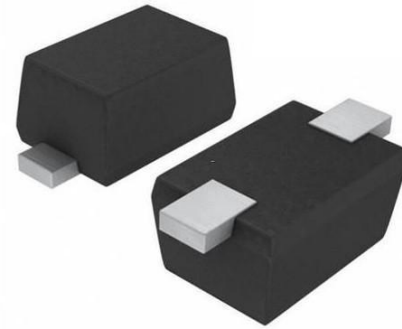


SCHOTTKY BARRIER DIODE

FEATURES

- Surface Mount Package Ideally Suited for Automatic Insertion
- High Conductance
- AEC-Q101 qualified (Automotive grade with suffix "Q".)
- Exsemi technology



MECHANICAL DATA

- Case: SOD-523
- Weight: approx. 1.4 mg
- Molding compound flammability rating: UL 94 V-0
- Terminals: high temperature soldering guaranteed: 260 °C/10 s at terminals
- Packaging codes / options: 08/3K per 7" reel (8 mm tape), 3K/box

Device Marking Code	
BAS70D5	K73/FC

Maximum Ratings and Electrical Characteristics, Single Diode @ $T_a=25^{\circ}\text{C}$

Parameter	Symbol	Limit	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	70	V
Peak Repetitive Peak Reverse Voltage	V_{RRM}	70	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
Forward Continuous Current	I_{FM}	100	mA
Non-Repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	600	mA
Power Dissipation	P_d	150	mW
Thermal Resistance from Junction to Ambient(Note 1)	$R_{\theta JA}$	680	$^{\circ}\text{C}/\text{W}$
Junction Temperature	T_j	125	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55~+150	$^{\circ}\text{C}$

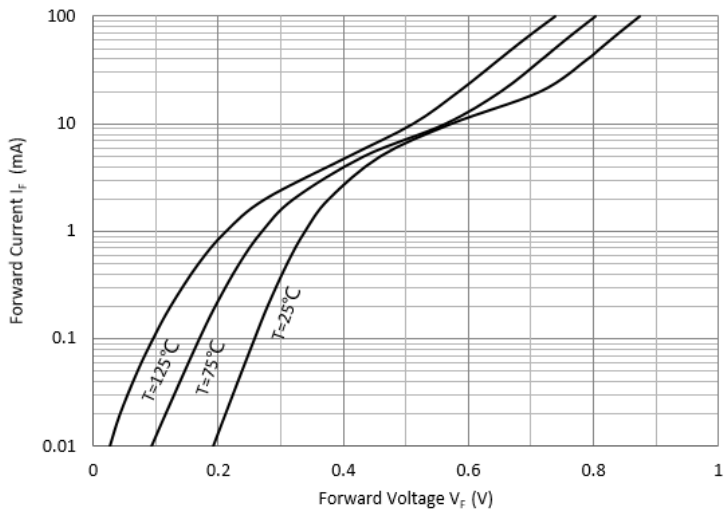
Note 1: Device mounted on 1"x1" FR4 PCB, 1oz single-side copper.

Electrical Ratings @Ta=25°C

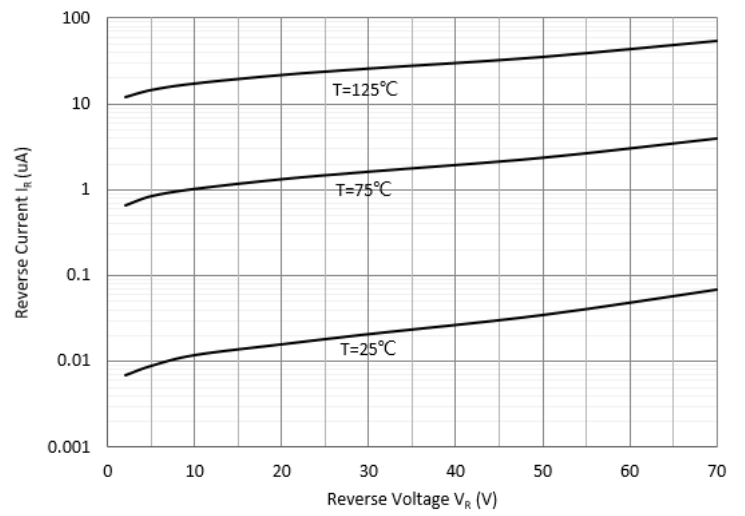
Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Forward voltage	V _{F1}			0.410	V	I _F =1mA
	V _{F2}			1.000	V	I _F =15mA
Reverse current	I _R		0.02	0.1	μA	V _R =50V
Capacitance between terminals	C _T		1.5	2	pF	V _R =0V, f=1MHz
Reverse recovery time	t _{rr}			5	ns	I _F =I _R =10mA I _{rr} =0.1X I _R , R _L =100Ω

Typical Characteristics

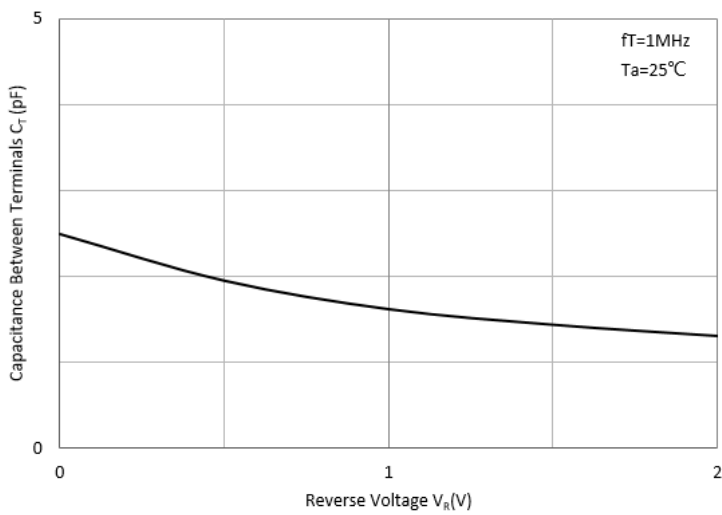
Forward Characteristics



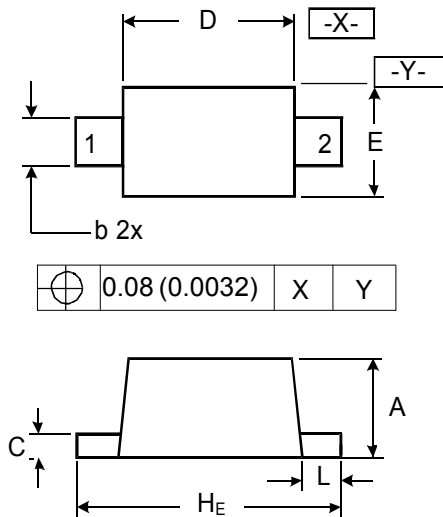
Reverse Characteristics



Capacitance Characteristics



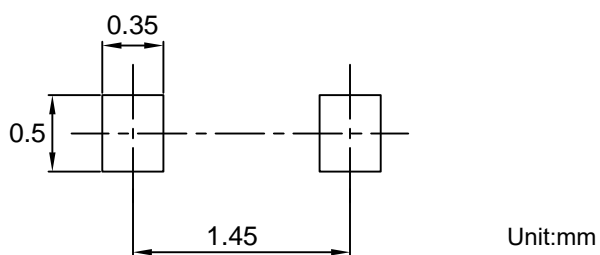
Dimensions SOD-523



DIMENSIONS

SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	0.50	0.75	0.020	0.029
b	0.18	0.35	0.007	0.014
C	0.07	0.20	0.0028	0.0079
D	1.10	1.30	0.043	0.051
E	0.70	0.90	0.028	0.035
H _E	1.50	1.70	0.059	0.067
L	0.10	0.25	0.004	0.010

SOD-523 Suggested Pad Layout

**Note:**

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.

Ordering information

Device	Package	Shipping
BAS70D5	SOD-523	5000/Tape&Reel