

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

DESCRIPTION

- Ultra Small Plastic SMD Package
- High Continuous Reverse Voltage
- High Switching Speed
- Band Indicates Cathode

MARKING

L4

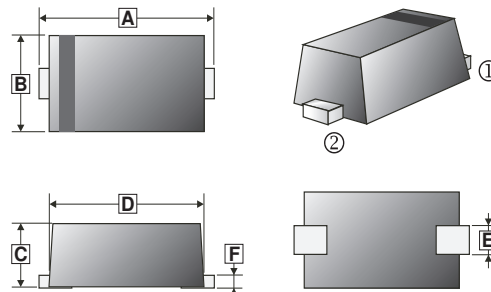
PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-523	3K	7 inch

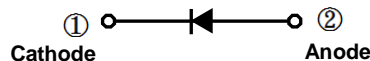
ORDER INFORMATION

Part Number	Type
BAS521-C	Lead (Pb)-free and Halogen-free

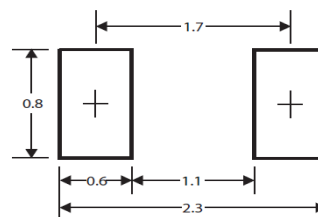
SOD-523



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.50	1.70	D	1.10	1.30
B	0.70	0.90	E	0.25	0.40
C	0.50	0.77	F	-	0.20



Mounting Pad Layout



*Dimensions in millimeters

ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise specified)

Parameter	Symbol	Rating	Unit
Repetitive Peak Reverse Voltage	V _{RRM}	300	V
Continuous Reverse Voltage	V _R	300	V
Continuous Forward Current	I _F	250	mA
Repetitive Peak Forward Current @tp=1ms	I _{FRM}	1	A
Non-Repetitive Peak Forward Surge Current @tp=1ms, square wave	I _{FSM}	4.5	A
Power Dissipation	P _D	500	mW
Operating Junction & Storage Temperature Range	T _J , T _{STG}	150, -65~150	°C

Note:

1. T_S is the temperature at the soldering point of the cathode tab.

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Breakdown Voltage	V _{BR}	300	340	-	V	I _R =100μA
Forward Voltage	V _F	-	0.95	1.1	V	I _F =100mA
Reverse Leakage Current	I _R	-	30	150	μA	V _R =250V
		-	40	100		V _R =250V, T _J =150°C
Diode Capacitance	C _D	-	0.4	-	pF	V _R =0V, f=1MHz
Reverse Recovery Time	T _{RR}	-	16	-	nS	I _F =I _R =30mA, I _{RR} =3mA, R _L =100Ω

RATINGS AND CHARACTERISTIC CURVES

Fig 1 Forward current as a function of forward voltage; typical values.

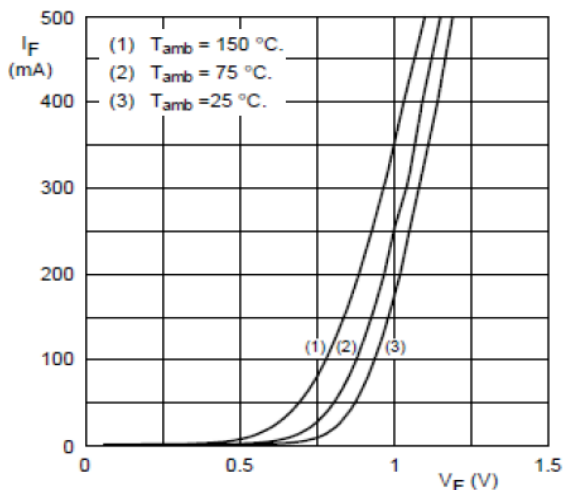


Fig 2 Reverse current as a function of junction temperature.

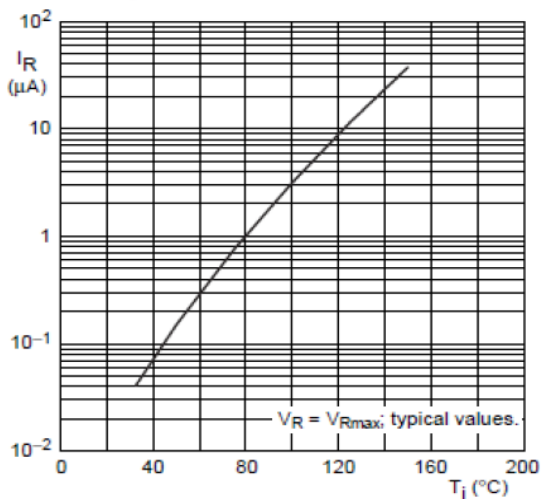


Fig 3 Maximum permissible continuous forward current as a function of ambient temperature.

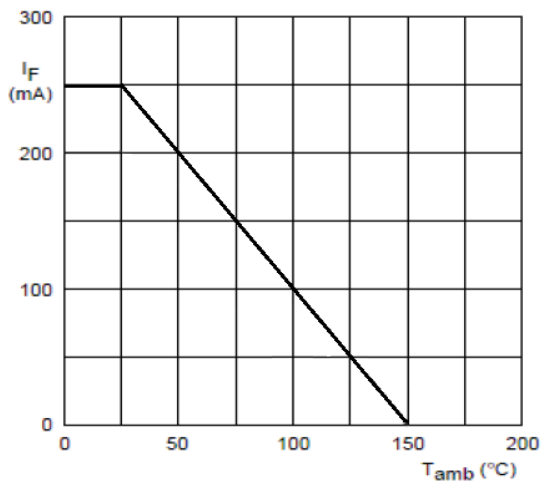


Fig 4 Diode capacitance as a function of reverse voltage; typical values.

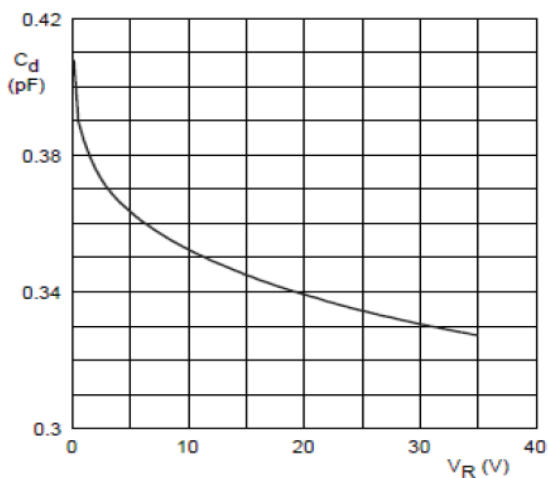


Fig 5 Maximum permissible non-repetitive peak forward current as a function of pulse duration.

