Elektronische Bauelemente

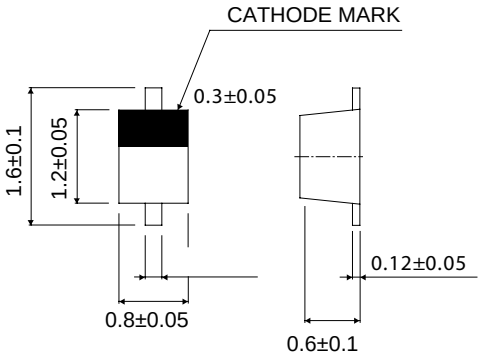
BAS16S

Surface Mount Switching Diode

RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

SOD-523



Dimensions in millimeters

FEATURES

- High-Speed Switching Applications
- Lead Finish: 100% Matte Sn (Tin)
- Qualified Reflow Temperature: 260℃
- Extremely Small SOD-523 Package

MARKING: A6

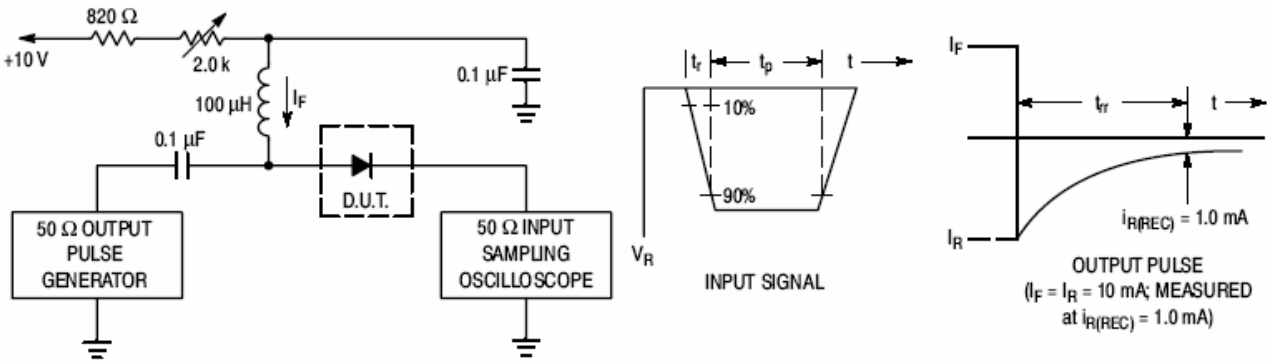
Maximum Ratings and Electrical Characteristics, Single Diode @T_A=25℃

Parameter	Symbol	Limits	Unit
DC reverse voltage	V_R	75	V
Forward current	I_F	200	mA
Pak forward surge current	$I_{FM(surge)}$	500	mA
Total Device Dissipation	P_D	150	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	635	℃/W
Junction and storage temperature	T_j ,T_{stg}	150	℃

Electrical Ratings @T_A=25℃

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse breakdown voltage	$V_{(BR)R}$	75				I_R=100uA
Forward voltage	V_{F1}			715	mV	I_F=1mA
	V_{F2}			855		I_F=10mA
	V_{F3}			1000		I_F=50mA
	V_{F4}			1250		I_F=150mA
Reverse recovery Time	t_{rr}			6.0	ns	I_F=I_R=10mAdc,R_L=50Ω
Reverse current	I_R			1.0	μA	V_R=75V
Forward recovery voltage	V_{FR}			1.75	V	I_F=10mA, t_r= 20ns
Diode Capacitance	C_D			2.0	pF	V_R=0V,f=1MHZ
Stored charge	Q_S			45	pC	I_F=10mA, V_R=5.0V ,R_L=500Ω

Typical Characteristics



Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current (I_F) of 10 mA.
2. Input pulse is adjusted so $I_{R(peak)}$ is equal to 10 mA.
3. $t_p \gg t_{rr}$

Figure 1. Recovery Time Equivalent Test Circuit

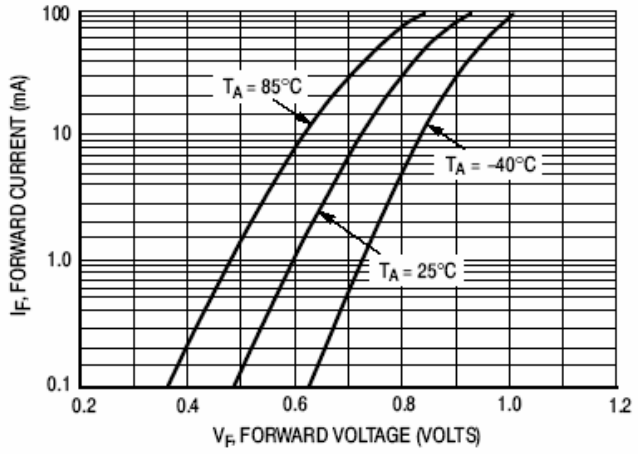


Figure 2. Forward Voltage

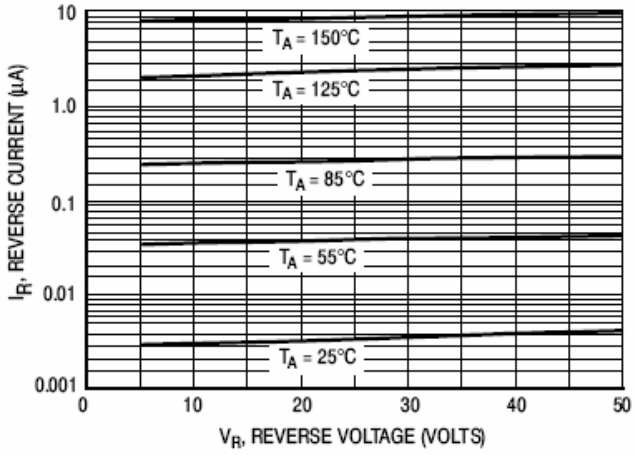


Figure 3. Leakage Current

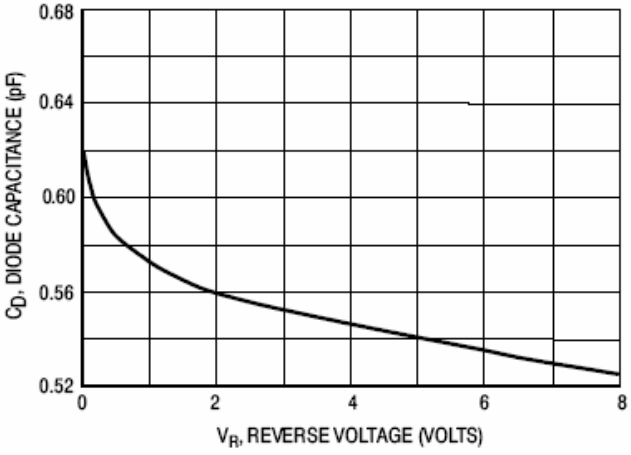


Figure 4. Capacitance