

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

DESCRIPTION

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- High Conductance

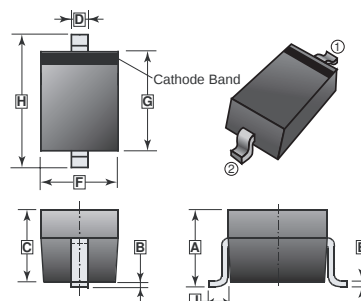
MARKING

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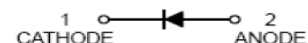
PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-323	3K	7 inch

SOD-323



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.05 REF.		E	0.080	0.180
B	0.20 REF.		F	1.15	1.45
C	0.80	1.00	G	1.60	1.80
D	0.25	0.40	H	2.30	2.70



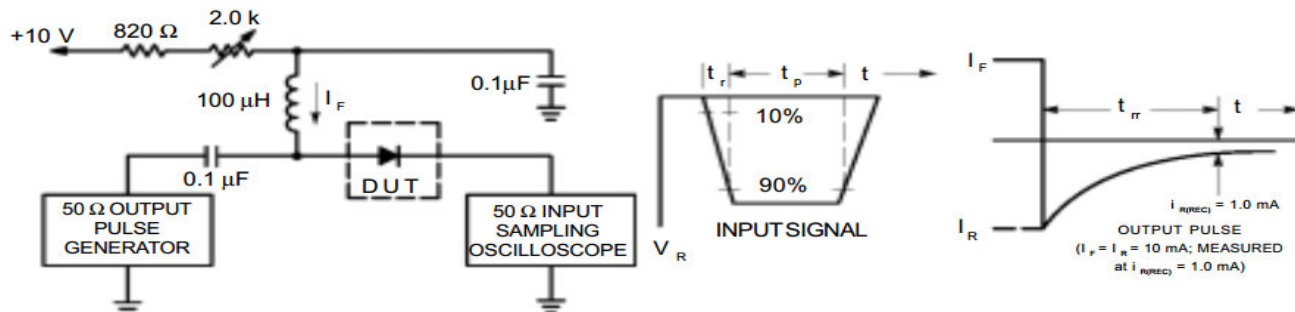
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (Single Diode @ $T_A = 25^\circ\text{C}$)

Parameter	Symbol	Ratings	Unit
Continuous Reverse Voltage	V_R	75	V
Forward Continuous Current	I_F	200	mA
Peak Forward Surge Current	$I_{FM(SURGE)}$	500	mA
Total Device Dissipation	P_D	200	mW
		1.57	Mw/°C
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	635	°C / W
Junction, Storage Temperature	T_J, T_{STG}	55 ~ 150	°C

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameters	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Reverse Breakdown Voltage	V_{BR}	75	-	-	V	$I_{BR} = 100\mu\text{A}$ DC
Forward Voltage	V_{F1}	-	-	0.715	V	$I_F = 1\text{mA}$
	V_{F2}	-	-	0.855		$I_F = 10\text{mA}$
	V_{F3}	-	-	1.0		$I_F = 50\text{mA}$
	V_{F4}	-	-	1.25		$I_F = 150\text{mA}$
Reverse Voltage Leakage Current	I_R	-	-	1	μA	$V_R = 75\text{V}$
		-	-	50		$V_R = 75\text{V}, T_J = 150^\circ\text{C}$
		-	-	30		$V_R = 25\text{V}, T_J = 150^\circ\text{C}$
Capacitance between terminals	C_T	-	-	2	pF	$V_R = 0, f = 1\text{MHz}$
Forward Recovery Voltage	V_{FR}	-	-	1.75	V	$I_F = 10\text{mA}, t_R = 20\text{nS}$
Reverse Recovery Time	t_{RR}	-	-	4	nS	$I_F = I_R = 10\text{mA}, R_L = 50\Omega$
Stored Charge	Q_S	-	-	45	pC	$I_F = 10\text{mA}$ dc to $V_R = 5\text{V}$ dc, $R_L = 500\Omega$

RATINGS AND CHARACTERISTIC CURVES



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

Figure 1. Recovery Time Equivalent Test Circuit

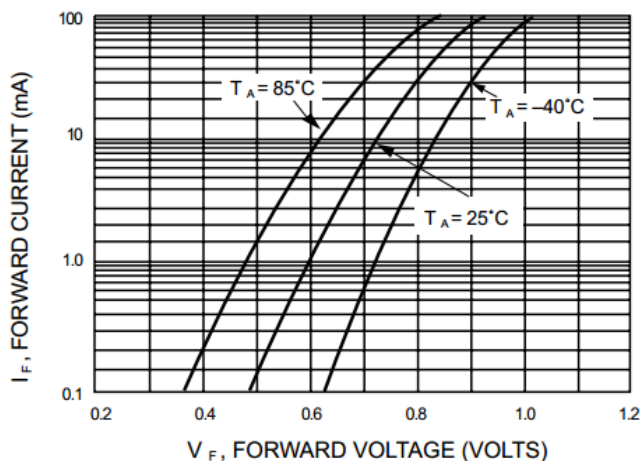


Figure 2. Forward Voltage

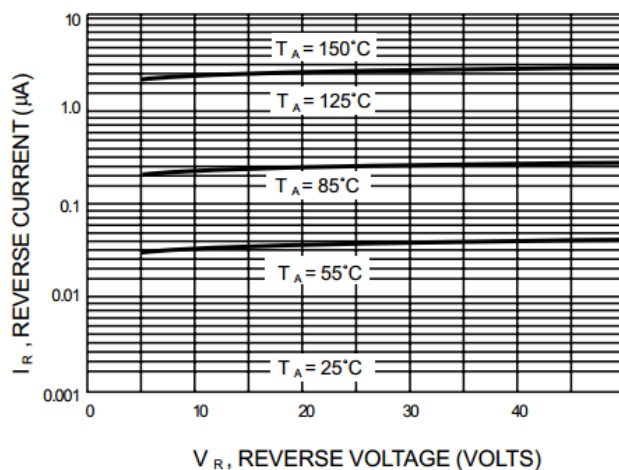


Figure 3. Leakage Current

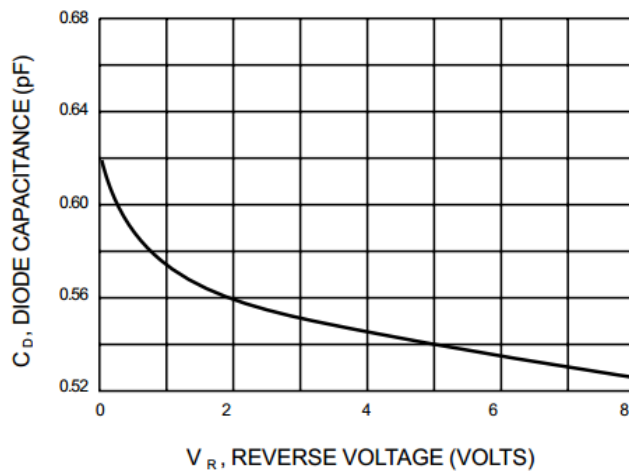


Figure 4. Capacitance