

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

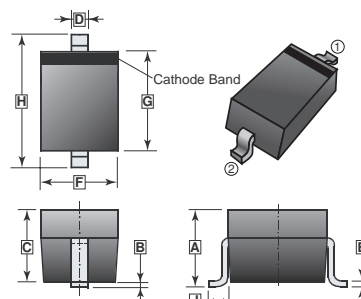
MARKING

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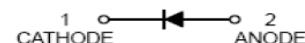
PACKAGE INFORMATION

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



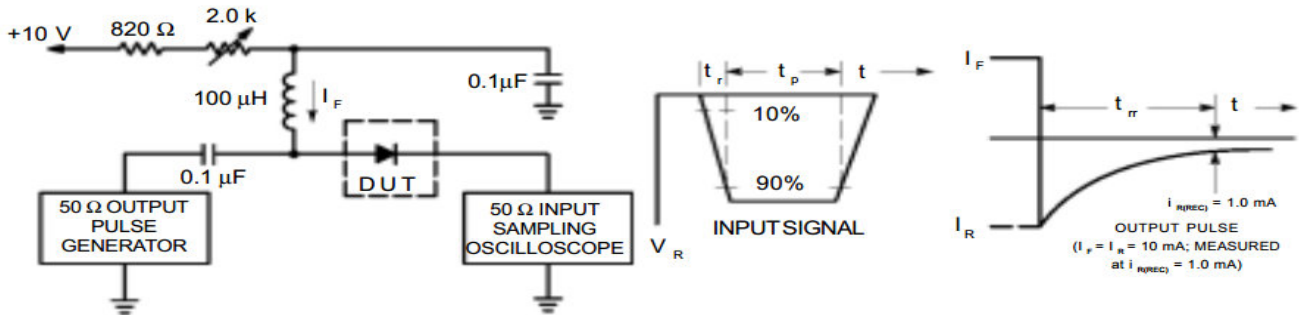
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (Single Diode @ T_A = 25°C)

Parameter	Symbol	Rated	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	FR-5 Board, T _A = 25°C	200
		Derate above 25°C	1.57
Thermal Resistance Junction to Ambient	R _{θJA}	635	°C / W
Junction, Storage Temperature	T _J , T _{STG}	55 ~ 150	°C

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

Parameters	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Reverse Breakdown Voltage	V _{BR}	75	-	-	V	I _{BR} = 100µADC
Forward Voltage	V _{F1}	-	-	0.715	V	I _F = 1mA
	V _{F2}	-	-	0.855		I _F = 10mA
	V _{F3}	-	-	1.0		I _F = 50mA
	V _{F4}	-	-	1.25		I _F = 150mA
Reverse Voltage Leakage Current	I _R	-	-	1	µA	V _R = 75V
		-	-	50		V _R = 75V, T _J = 150°C
		-	-	30		V _R = 25V, T _J = 150°C
Capacitance between terminals	C _T	-	-	2	pF	V _R = 0, f = 1MHz
Forward Recovery Voltage	V _{FR}	-	-	1.75	V	I _F = 10mA, t _R = 20nS
Reverse Recovery Time	t _{RR}	-	-	4	nS	I _F = I _R = 10 mA, R _L = 50Ω
Stored Charge	Q _S	-	-	45	pC	I _F = 10mAdc to V _R = 5Vdc, R _L = 500Ω

RATINGS AND CHARACTERISTIC CURVES



- Notes: 1. A 2.0 kΩ 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. $t_p \gg t_{rr}$

Figure 1. Recovery Time Equivalent Test Circuit

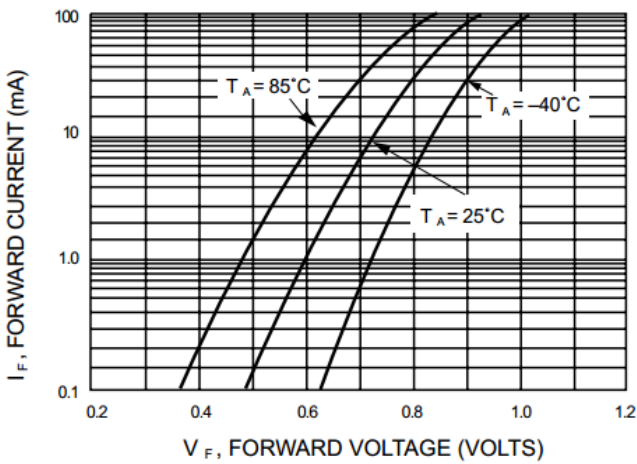


Figure 2. Forward Voltage

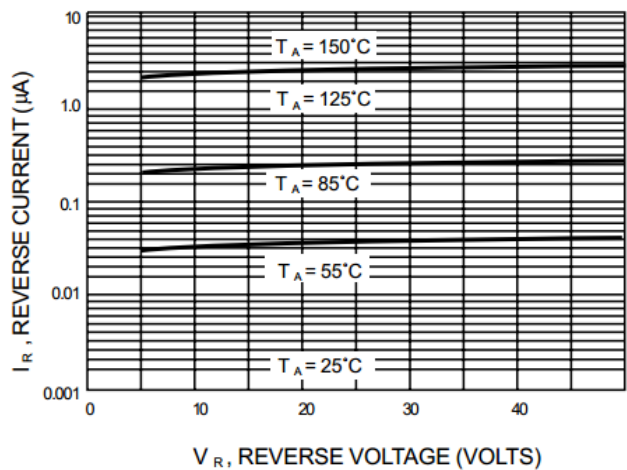


Figure 3. Leakage Current

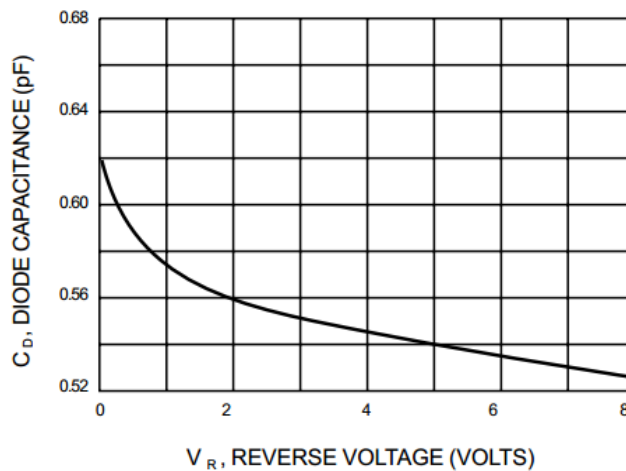


Figure 4. Capacitance