

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

## FEATURES

- Fast Switching Device ( $T_{RR} < 4.0\text{nS}$ )
- General Purpose Diodes
- Surface Device Type Mounting
- Compression Bonded Construction
- All External Surfaces Are Corrosion Resistant And Terminals Are Readily Solderable
- Matte Tin (Sn) Lead Finish

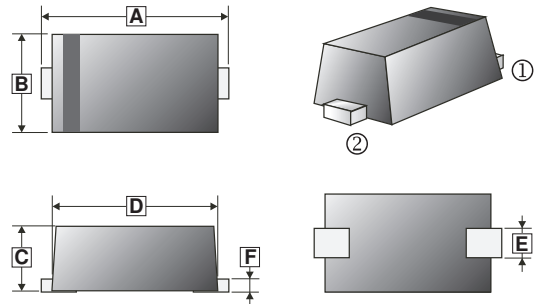
## MARKING

E1

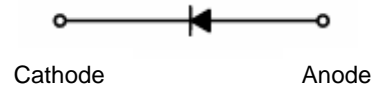
## PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-523	3K	7 inch

## 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	0.35
C	0.50	0.77	F	0.07	0.20



## ABSOLUTE MAXIMUM RATINGS ( $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	$V_{RSM}$	100	V
Repetitive Peak Reverse Voltage	$V_{RRM}$	75	V
Continuous Forward Current	$I_O$	150	mA
Repetitive Peak Forward Current	$I_{FRM}$	300	mA
Non-repetitive Peak Forward Surge Current @ Pulse Width = $1\mu\text{S}$	$I_{FSM}$	2	A
Power Dissipation	$P_D$	200	mW
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	150, -55~150	$^\circ\text{C}$

Notes:

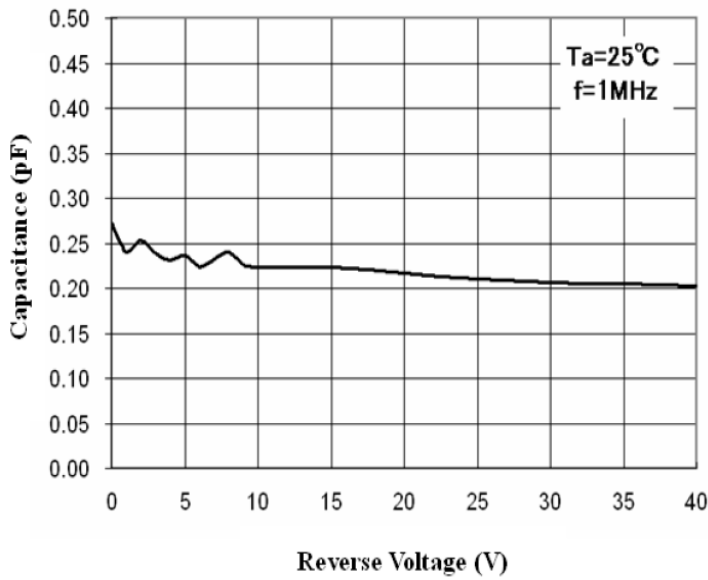
1. These ratings are limiting values above which the serviceability of the diode may be impaired.

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

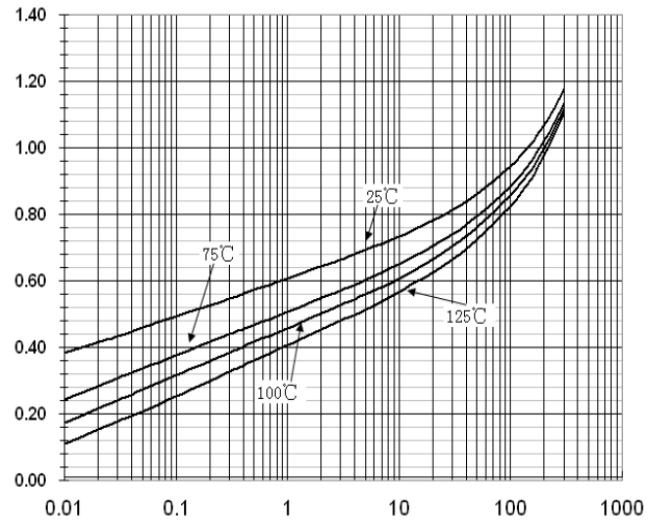
Parameter	Symbol	Limits		Unit	Test Condition
		Min.	Max.		
Breakdown Voltage	$B_V$	100	-	V	$I_R=100\mu\text{A}$
		75	-		$I_R=5\mu\text{A}$
Reverse Leakage Current	$I_R$	-	25	nA	$V_R=20\text{V}$
		-	5	$\mu\text{A}$	$V_R=75\text{V}$
Forward Voltage	$V_F$	-	1.0	V	$I_F=10\text{mA}$
Reverse Recovery Time	$T_{RR}$	-	4	nS	$I_F=10\text{mA}$ $I_R=60\text{mA}$ $R_L=100\Omega$ $I_{RR}=1\text{mA}$
Capacitance	C	-	4	pF	$V_R=0, f=1\text{MHz}$

**CHARACTERISTIC CURVES**

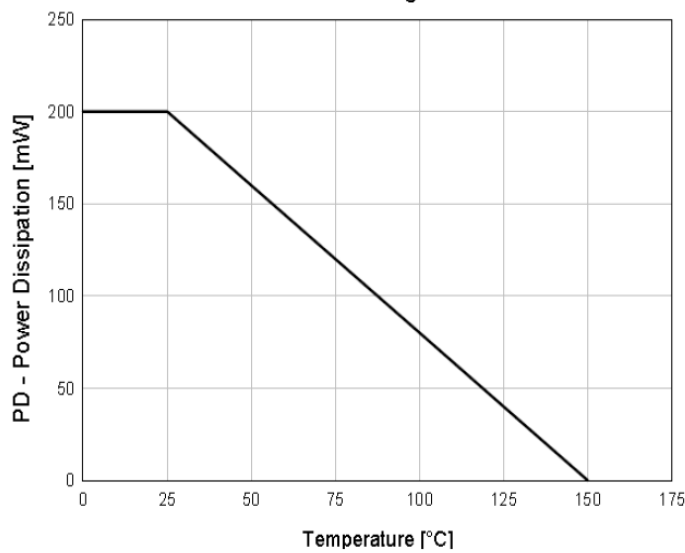
**Total Capacitance**



**Forward Voltage vs Ambient Temperature**



**Power Derating Curve**



**Reverse Current vs Reverse Voltage**

