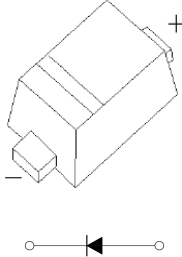


FAST SWITCHING DIODE	SOD-523 Plastic-Encapsulate Diodes
<p><u>SOD-523</u></p> 	<p>Features</p> <ul style="list-style-type: none"> • Fast switching speed • Ultra-small surface mount package • For general purpose switching applications • High conductance

Absolute Maximum Ratings (T_a = 25 °C)				
Parameter	Symbol	Value	Unit	
Non-Repetitive Peak Reverse Voltage	V _{RM}	100	V	
Reverse Voltage	V _R	75	V	
Average Rectified Forward Current	I _{F(AV)}	125	mA	
Forward Continuous Current	I _{FM}	250	mA	
Non-repetitive Peak Forward Surge Current	I _{FSM}	at t = 1 μs	2	A
		at t = 100 ms	1	
Power Dissipation	P _{tot}	150	mW	
Thermal Resistance Junction to Ambient Air	R _{θJA}	833	°C/W	
Operating Temperature Range	T _J	- 65 to + 150	°C	
Storage Temperature Range	T _{stg}	- 65 to + 150	°C	
Characteristics at T_a = 25 °C				
Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at I _R = 1 μA	V _{(BR)R}	75	-	V
Forward Voltage at I _F = 1 mA at I _F = 10 mA at I _F = 50 mA at I _F = 150 mA	V _F	-	0.715	V
		-	0.855	
		-	1	
		-	1.25	
Peak Reverse Current at V _R = 75 V at V _R = 20 V at V _R = 75 V, T _J = 150 °C at V _R = 25 V, T _J = 150 °C	I _R	-	1	μA
		-	25	nA
		-	50	μA
		-	30	μA
Total Capacitance at V _R = 0 V, f = 1 MHz	C _T	-	2	pF
Reverse Recovery Time at I _{rr} = 0.1 X I _R , I _F = I _R = 10 mA, R _L = 100 Ω	t _{rr}	-	4	ns

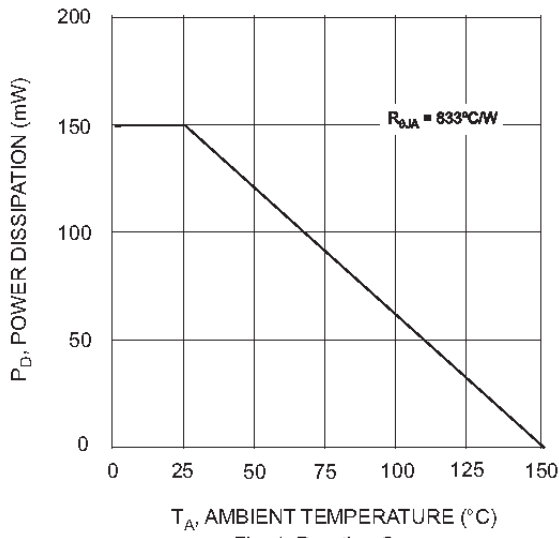


Fig. 1 Derating Curve

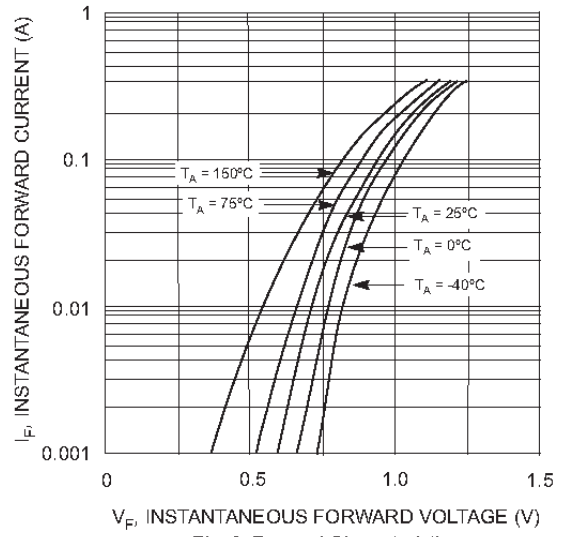


Fig. 2 Forward Characteristics

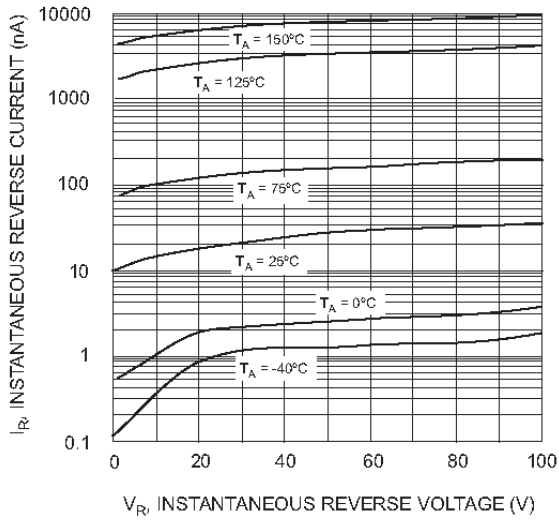


Fig. 3 Typical Reverse Characteristics

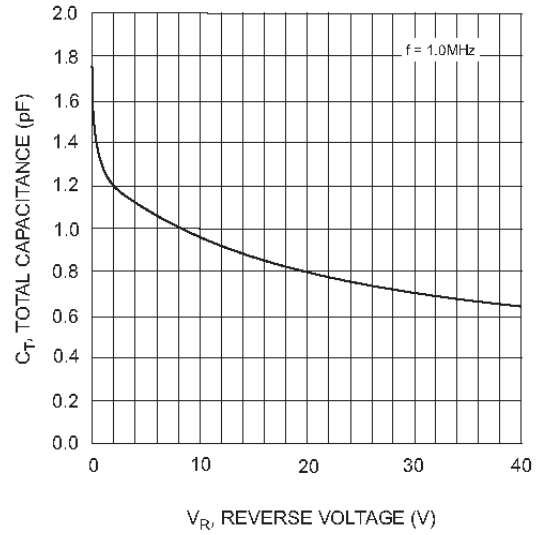
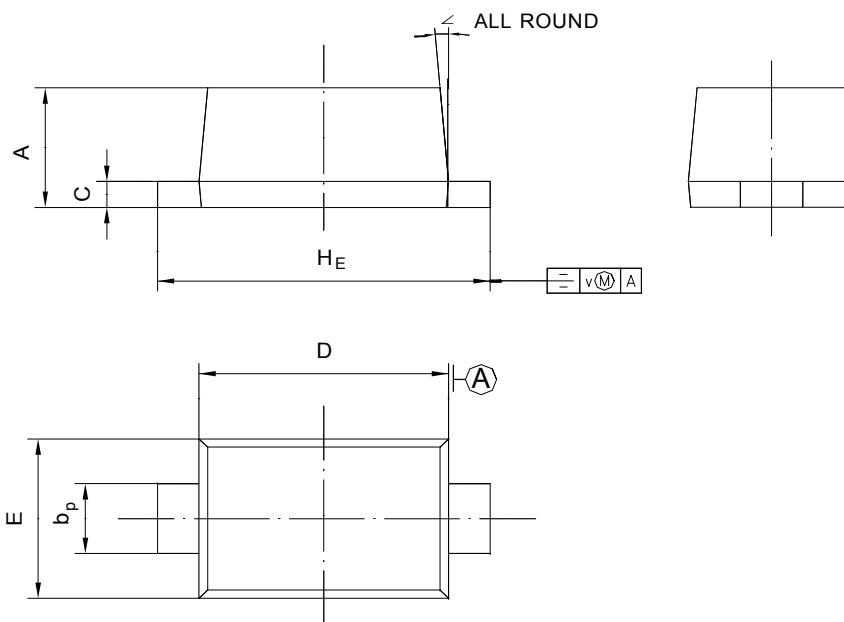


Fig. 4 Typical Capacitance vs. Reverse Voltage

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads



UNIT	A	b _p	C	D	E	H _E	V	∠
mm	0.70	0.4	0.135	1.25	0.85	1.7	0.1	5°
	0.60	0.3	0.100	1.15	0.75	1.5		