



## SOD-123 Plastic-Encapsulate Diode

### B5817W SCHOTTKY BARRIER DIODE

FEATURES :

Power dissipation

$P_D$ : 450 mW (  $T_{amb}=25$  )

Collector current

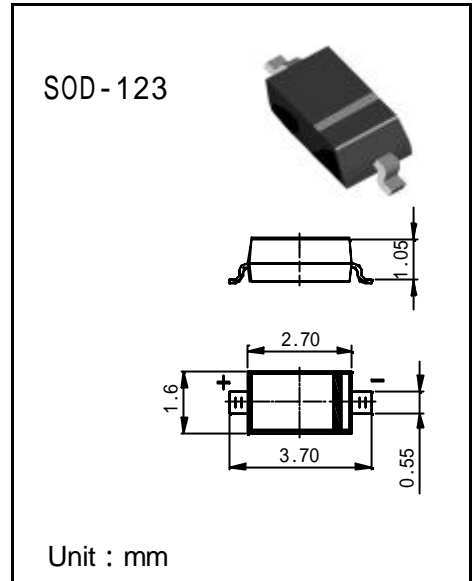
$I_F$ : 1 A

Collector-base voltage

$V_R$ : 20 V

Operating and storage junction temperature range

$T_J, T_{stg}$ : -55 to +150



MARKING : SJ

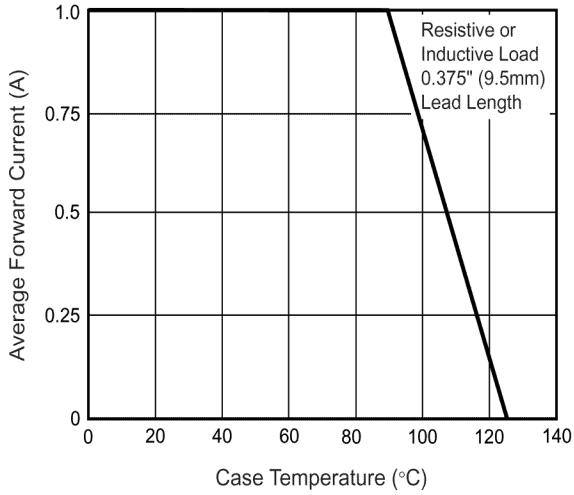
**ELECTRICAL CHARACTERISTICS (  $T_{amb}=25$  unless otherwise specified )**

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)}$	$I_R=1mA$	20		V
Reverse voltage leakage current	$I_R$	$V_R=20V$		1	mA
Forward voltage	$V_F$	$I_F=1A$ $I_F=3A$		0.45 0.75	V
Diode capacitance	$C_D$	$V_R=4V$ $f=1MHz$		120	pF

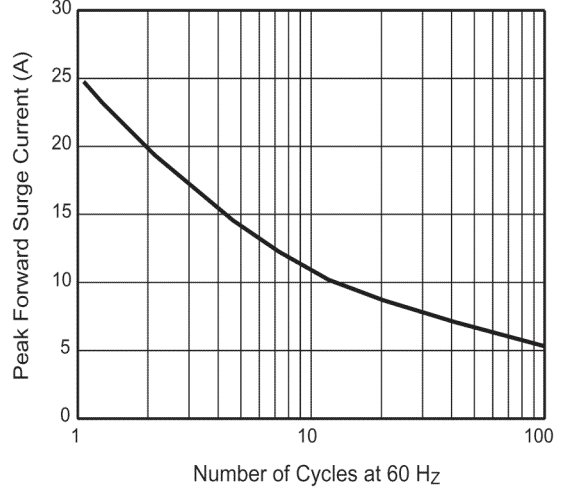
# Typical Characteristics

**B5817W**

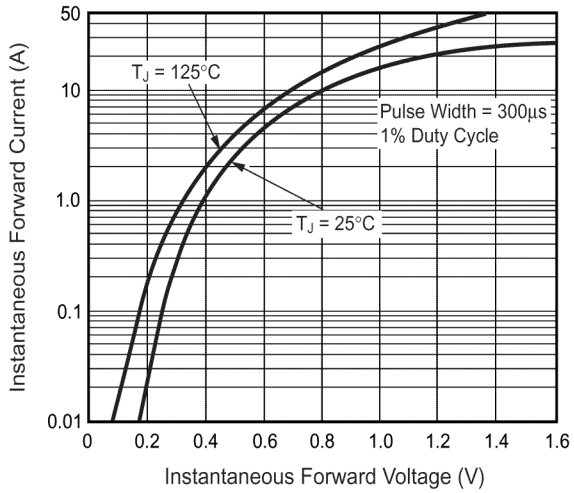
**Fig. 1 - Forward Current Derating Curve**



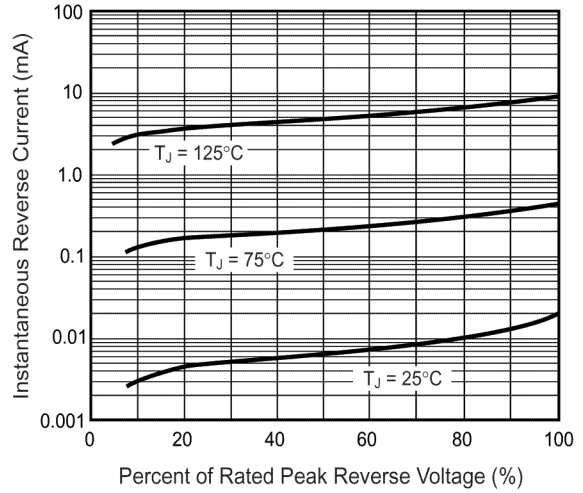
**Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current**



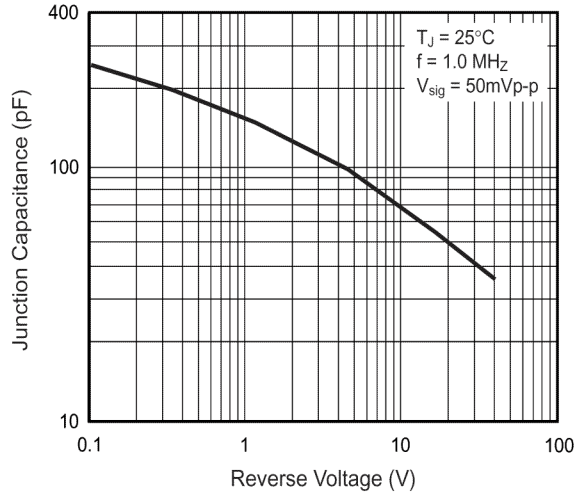
**Fig. 3 - Typical Instantaneous Forward Characteristics**



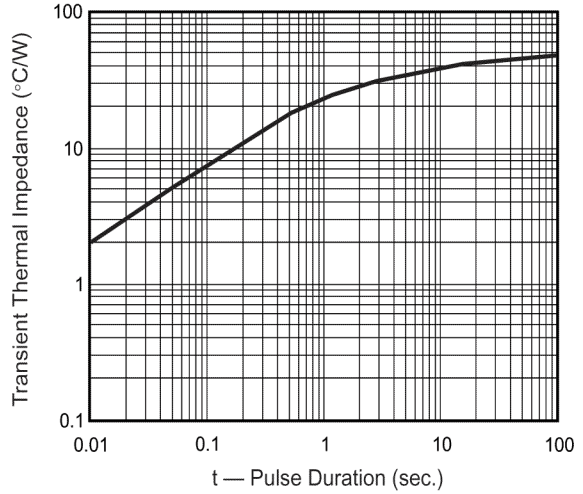
**Fig. 4 - Typical Reverse Characteristics**



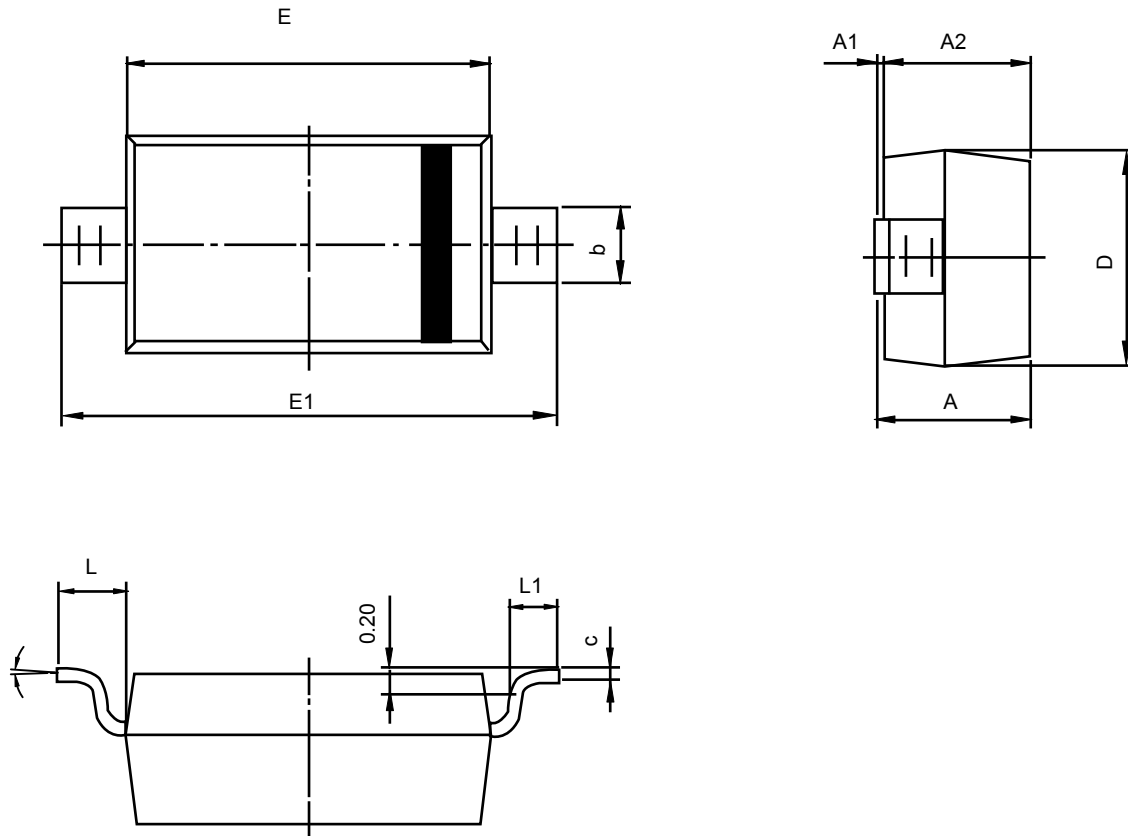
**Fig. 5 - Typical Junction Capacitance**



**Fig. 6 - Typical Transient Thermal Impedance**



## SOD-123 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500REF		0.020REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°