



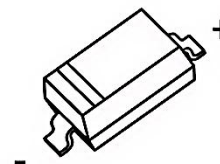
BAT54W

SCHOTTKY DIODE

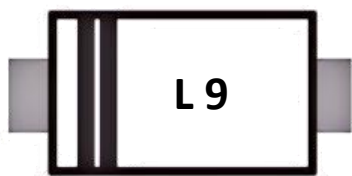
FEATURES

- * Low Forward Voltage Drop
- * Fast Switching
- * Small Surface Mount Package
- * PN Junction Guard Ring for Transient and ESD Protection
- * Available in lead free version

SOD-123



MARKING



The marking bar indicates the cathode
Solid dot = Green molding compound device,
if none, the normal device.

ABSOLUTE MAXIMUM RATINGS (TC=25°C, unless otherwise specified)

SYMBOL	PARAMETER	VALUE	UNIT
V_R	DC blocking voltage	30	V
$V_{R(RMS)}$	RMS reverse voltage	21	V
I_o	Average rectified output current	100	mA
I_F	Forward Continuous Current	200	mA
I_{FRM}	Repetitive Peak Forward Current	300	mA
I_{FSM}	Non-Repetitive Peak Forward Surge Current($t_p=8.3ms$)	600	mA
P_d	Power Dissipation	500	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	200	°C/W
T_j	Operating Junction Temperature Range	125	°C
T_{stg}	Storage Temperature Range	-55~150	°C

ELECTRICAL CHARACTERISTICS (Tc=25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)}$	$I_R=100\mu A$	30			V
Forward current	I_R	$V_R=25V$			2	μA
Reverse voltage	V_F	$I_{F1}=0.1mA$			0.24	V
		$I_{F2}=1mA$			0.32	
		$I_{F3}=10mA$			0.40	
		$I_{F4}=30mA$			0.50	
		$I_{F5}=100mA$			1	
Capacitance between terminals	C_T	$V_R=1V, f=1MHz$			10	pF
Reverse recovery time	t_{rr}	$I_F=10mA, I_R=10mA$ to 1mA $R_L=100\Omega$			5	ns

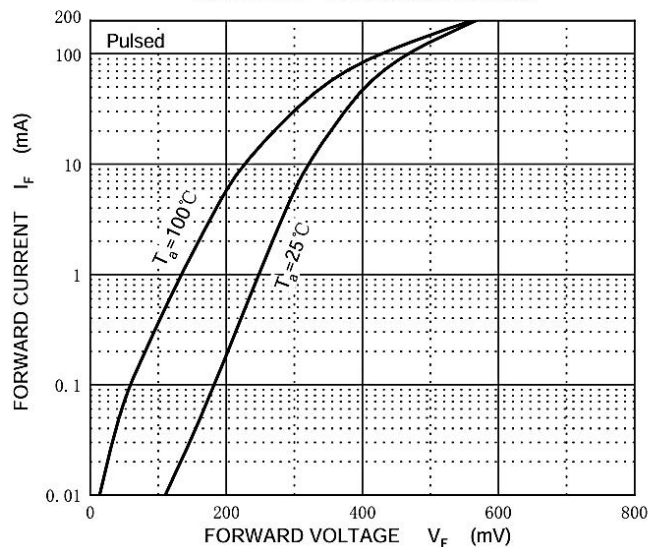


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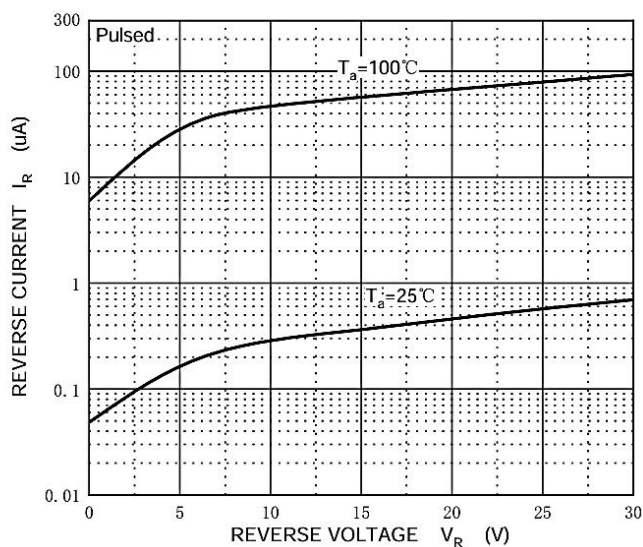
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■ TYPICAL CHARACTERISTICS

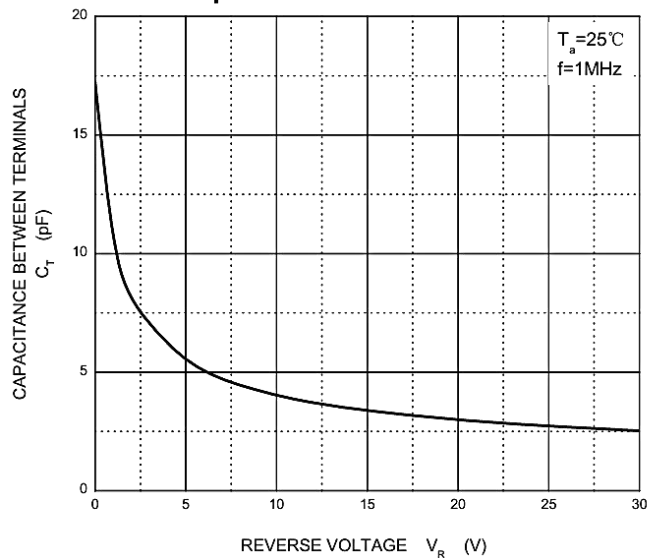
Forward Characteristics



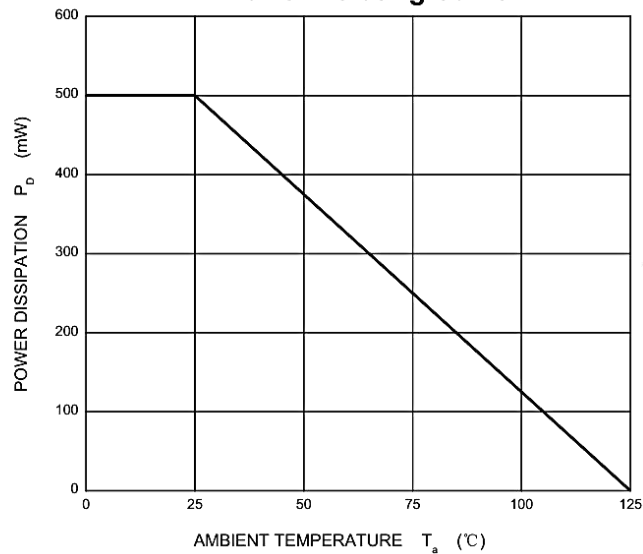
Reverse Characteristics



Capacitance Characteristics



Power Derating Curve

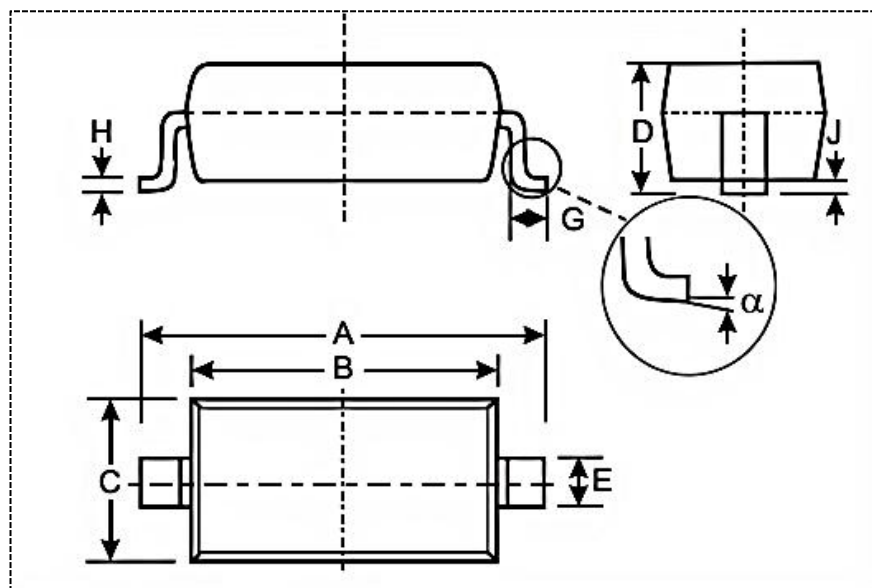




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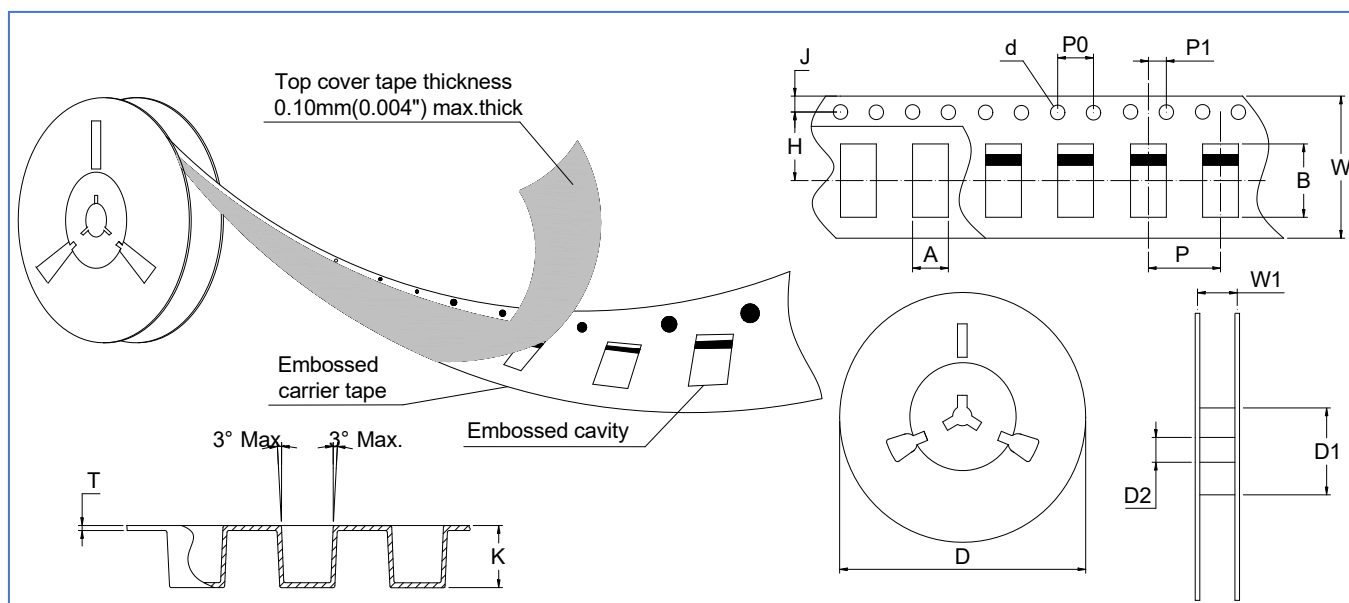
SCHOTTKY DIODE

■ SOD-123 PACKAGE OUTLINE DIMENSIONS



SOD-123		
Dim	Min	Max
A	3.55	3.85
B	2.60	2.80
C	1.50	1.70
D	—	1.20
E	0.55 Typical	
G	0.25	—
H	0.10 Typical	
J	—	0.10
α	0°	8°
All Dimensions in mm		

■ REEL PACKING



SYMBOL	A	B	d	D*	D1	D2	J	H	K	P	P0	P1	T	W	W1
	Max.	Max.	Typ.	/	Min.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Min.
mm(inch)															
SOD123	2.1 (0.083)	4 (0.157)	Φ1.55 (0.061)	330/178 (13/7)	50 (1.969)	13 (0.512)	1.75 (0.069)	3.50 (0.138)	1.60 (0.063)	4.00 (0.157)	4.00 (0.157)	2.00 (0.079)	0.25 (0.010)	8.15 (0.321)	10.5 (0.413)
*NOTE: D=13inch Q.TY PER REEL=10K ; D=7inch Q.TY PER REEL=3K															