Elektronische Bauelemente

BAT54P

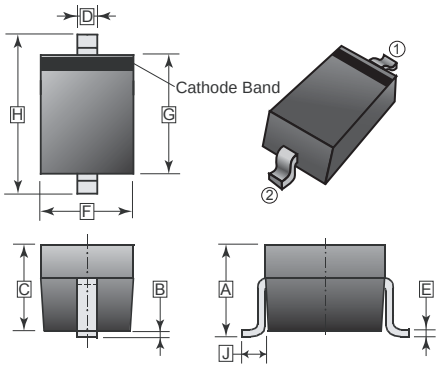
Plastic-Encapsulate Diodes

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

FEATUERS

- Low Turn-on Voltage
- Fast Switching
- Ultra-Small Surface Mount Package
- PN Junction Guard Ring for Transient and ESD Protection

SOD-123



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.05	1.25	F	1.50	1.70
B	0.10 REF.		G	2.60	2.80
C	1.05	1.15	H	3.55	3.85
D	0.45	0.65	J	0.50 REF.	
E	0.08	0.15			

MARKING

L9

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-123	3K	7 inch

MAXIMUM RATINGS (T_A=25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
DC Blocking Voltage	V_R	30	V
RMS reverse Voltage	$V_{R(RMS)}$	21	V
Average Rectified Output Current	I_O	100	mA
Forward continuous Current	I_F	200	mA
Repetitive peak Forward Current	I_{FRM}	300	mA
Forward Surge Current@ t<1s	I_{FSM}	600	mA
Power Dissipation	P_d	500	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	200	°C/W
Junction Temperature, Storage Temperature	T_J, T_{STG}	125, -55~150	°C

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

Parameter	Symbol	Min.	Max.	Unit	Teat Conditions
Reverse Breakdown Voltage	$V_{(BR)R}$	30	-	V	I_R = 100μA
Forward Voltage	V_F	-	240	mV	I_F=0.1mA
		-	320		I_F=1mA
		-	400		I_F=10mA
		-	500		I_F=30mA
		-	1000		I_F=100mA
Peak Reverse Current	I_R	-	2	μA	V_R=25V
Reverse Recovery Time	t_{RR}	-	5	ns	I_F=10mA, I_R=10mA~1mA R_L=100Ω
Capacitance between Terminals	C_T	-	10	pF	V_R=1V, f=1MHz

RATINGS AND CHARACTERISTIC CURVES

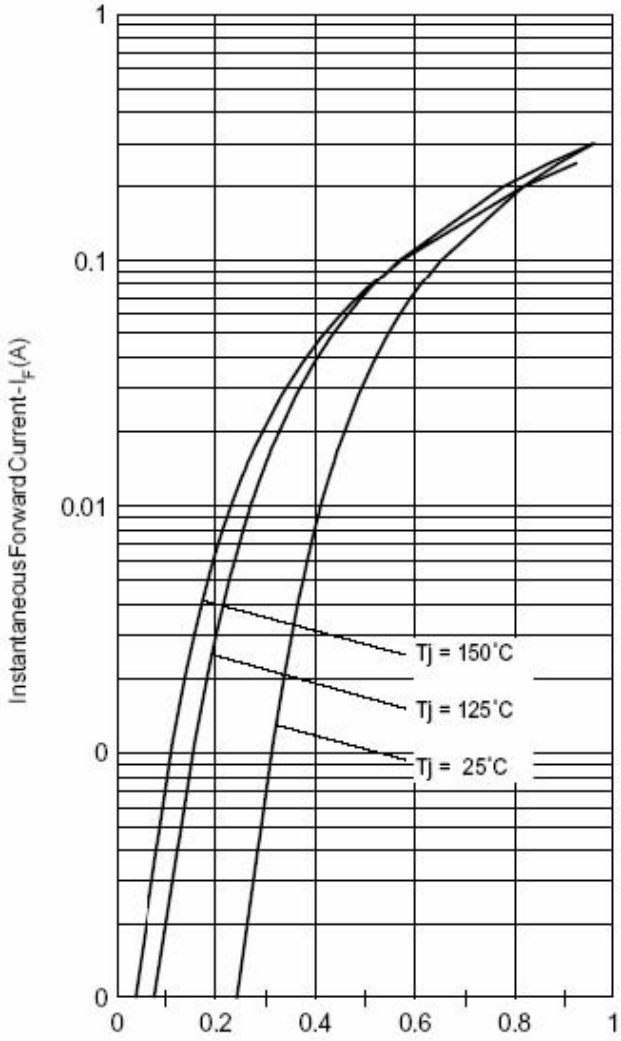


Fig.1-Max. Forward Voltage Drop Characteristics (Per Leg)

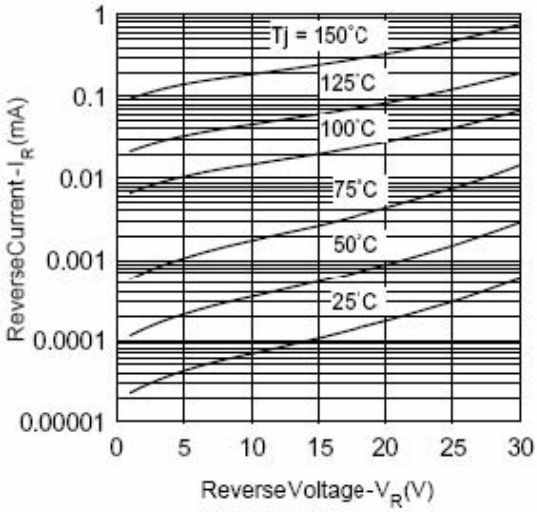


Fig.2-Typical Values Of Reverse Current Vs. Reverse Voltage (Per Leg)

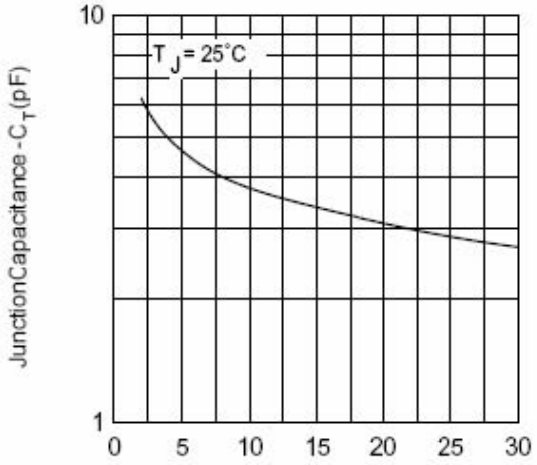


Fig.3-Typical Junction Capacitance Vs. Reverse Voltage (Per Leg)

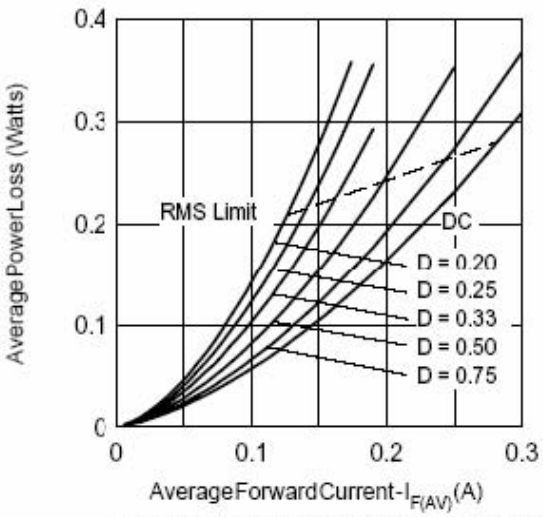


Fig.4-Forward Power Loss Characteristics

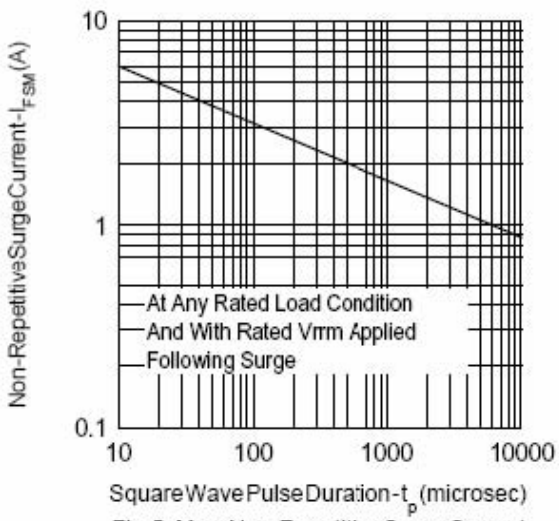


Fig.5-Max. Non-Repetitive Surge Current