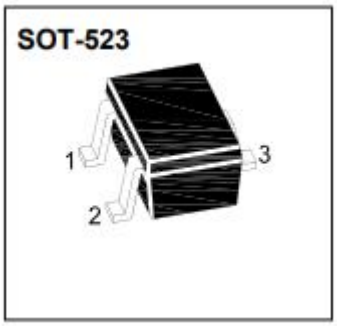
迈拓电子
MAITUO ELECTRONIC

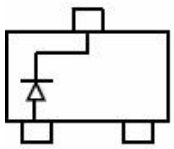
BAT54 … SCHOTTKY DIODES



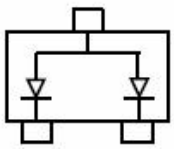
FEATURES

Extremely Fast Switching Speed

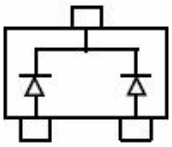
BAT54T/AT/CT/ST



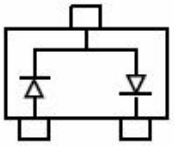
BAT54T MARKING: KL1



BAT54AT MARKING: KL2



BAT54CT MARKING: KL3



BAT54ST MARKING: KL4

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	30	V
Forward Continuous Current	I_{FM}	200	mA
Repetitive Peak Forward Current	I_{FRM}	300	mA
Forward Surge Current @ t < 1.0s	I_{FSM}	600	mA
Power Dissipation	P_d	150	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	833	°C/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +125	°C

Electrical Characteristics @T_A=25℃

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse Breakdown Voltage	$V_{(BR)R}$	30			V	IR=100μA
Forward voltage	V_{F1}			0.24	V	I_F=0.1mA
	V_{F2}			0.32	V	I_F=1mA
	V_{F3}			0.40	V	I_F=10mA
	V_{F4}			0.50	V	I_F=30mA
	V_{F5}			1	V	I_F=100mA
Reverse current	I_R			2	μA	V_R=25V
Diode Capacitance	C_D			10	pF	V_R=1V,f=1MHz
Reverse Recovery Time	t_{rr}			5	nS	I_F=I_R=10mA Irr=0.1XI_R,R_L=100Ω

Typical Characteristics

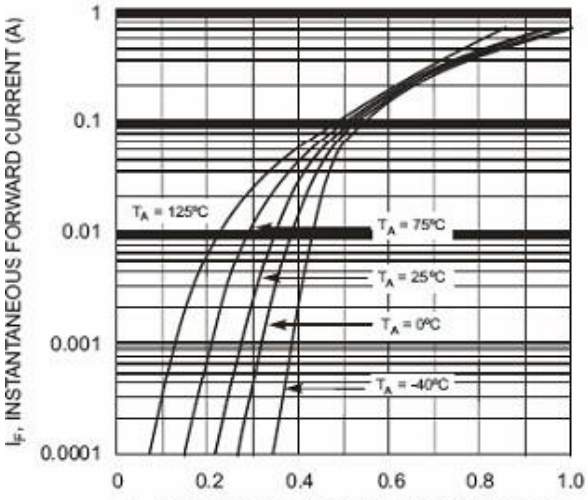


Fig. 1 Forward Characteristics

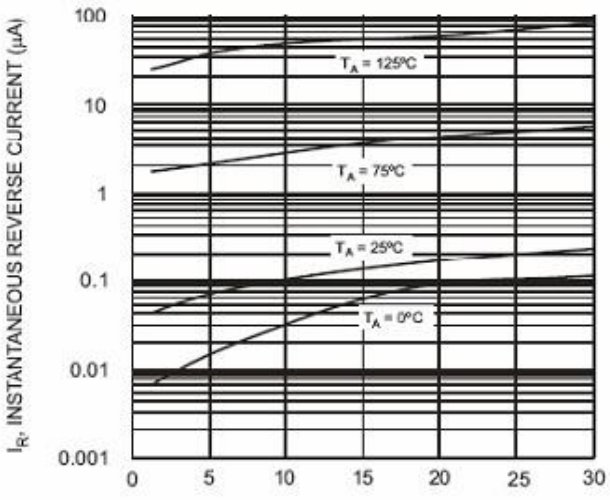


Fig. 2 Typical Reverse Characteristics

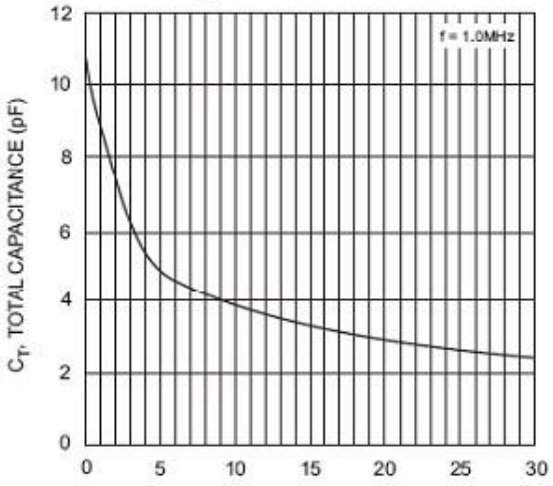


Fig. 3 Typical Capacitance vs. Reverse Voltage

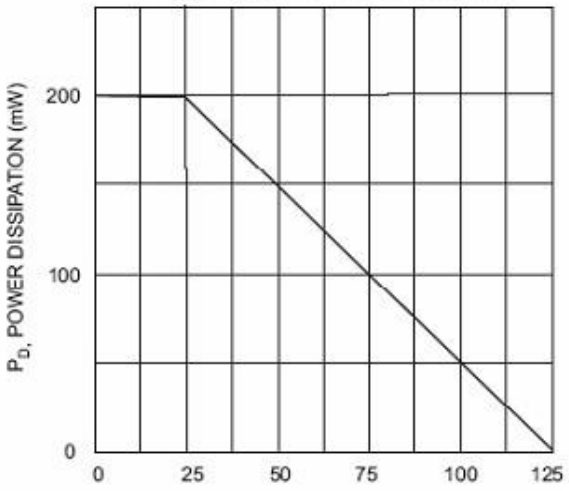
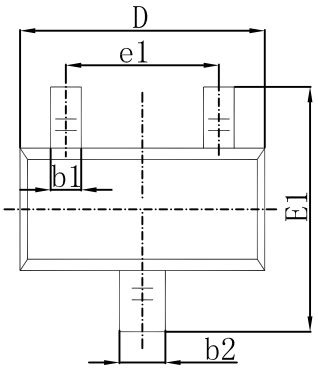
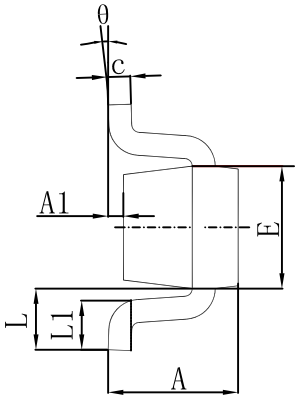


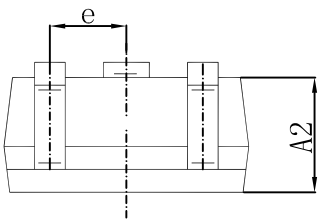
Fig. 4 Power Derating Curve

迈拓电子
MAITUO ELECTRONIC

SOT-523 Package Outline Dimensions

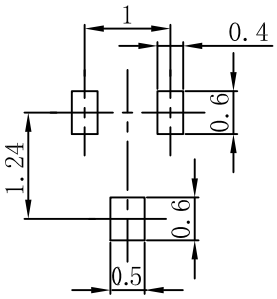






Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.700	0.900	0.028	0.035
A1	0.000	0.100	0.000	0.004
A2	0.700	0.800	0.028	0.031
b1	0.150	0.250	0.006	0.010
b2	0.250	0.350	0.010	0.014
c	0.100	0.200	0.004	0.008
D	1.500	1.700	0.059	0.067
E	0.700	0.900	0.028	0.035
E1	1.450	1.750	0.057	0.069
e	0.500 TYP.		0.020 TYP.	
e1	0.900	1.100	0.035	0.043
L	0.400 REF.		0.016 REF.	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

SOT-523 Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.