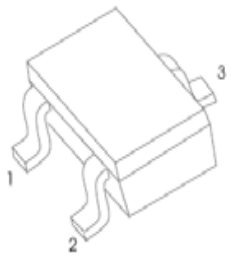
SHENZHEN JIECHENG SEMICONDUCTOR TECHNOLOGY CO., LTD

SOT-523 Plastic-Encapsulate Diodes

BAS40T/-04T/-05T/-06T

SCHOTTKY BARRIER DIODE

SOT-523



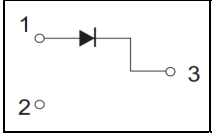
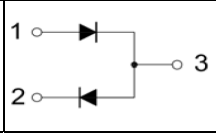
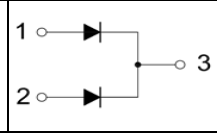
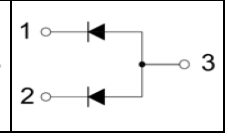
FEATURES

- Fast Switching Speed
- Low Trun-on Voltage

MARKING

BAS40T	BAS40-04T	BAS40-05T	BAS40-06T
7C	7D	7E	7F

Equivalent Circuit

BAS40T	BAS40-04T	BAS40-05T	BAS40-06T
			

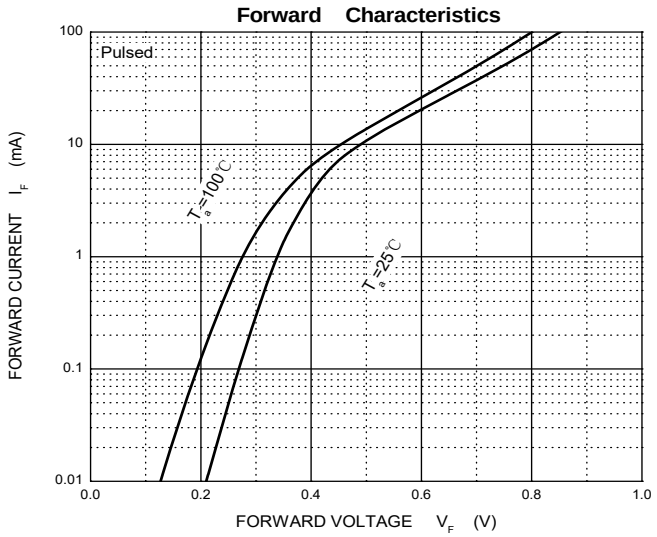
MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

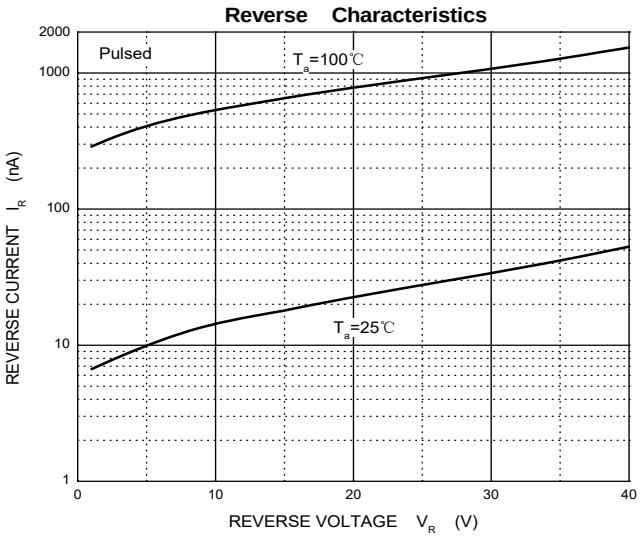
Parameter	Symbol	Limit	Unit
Peak Repetitive Peak Reverse Voltage **Working Peak Reverse Voltage** **DC Blocking Voltage**	V_{RRM} V_{RWM} V_R	40	V
Forward Continuous Current	I_{FM}	200	mA
Average Rectified Output Current	I_O	200	mA
Non-Repetitive Peak Forward Surge Current @ t = 8.3ms	I_{FSM}	0.6	A
Power Dissipation	P_D	150	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	667	℃/W
Operating Junction Temperature Range	T_J	-40 ~ +125	℃
Storage Temperature Range	T_{STG}	-55 ~ +150	℃

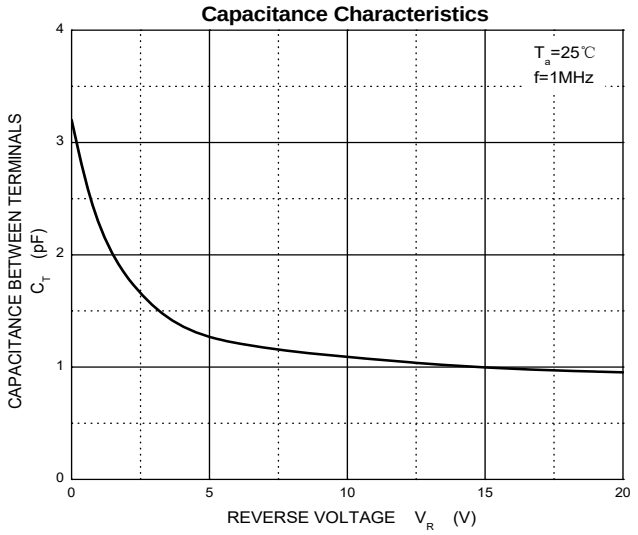
ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)

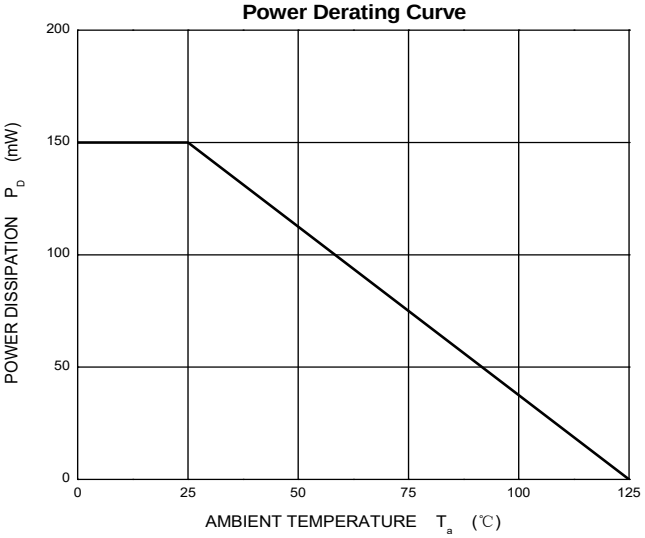
Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse Breakdown Voltage	$V_{(BR)}$	40			V	I_R=10μA
Forward Voltage	V_{F1}			0.38	V	I_F=1mA
	V_{F2}			1	V	I_F=40mA
Reverse Current	I_R			0.2	μA	V_R=30V
Diode Capacitance	C_D			5	pF	V_R=0,f=1MHz
Reverse Recovery Time	t_{rr}			5	ns	I_F=I_R=10mA Irr=0.1XI_R,R_L=100Ω

Typical Characteristics

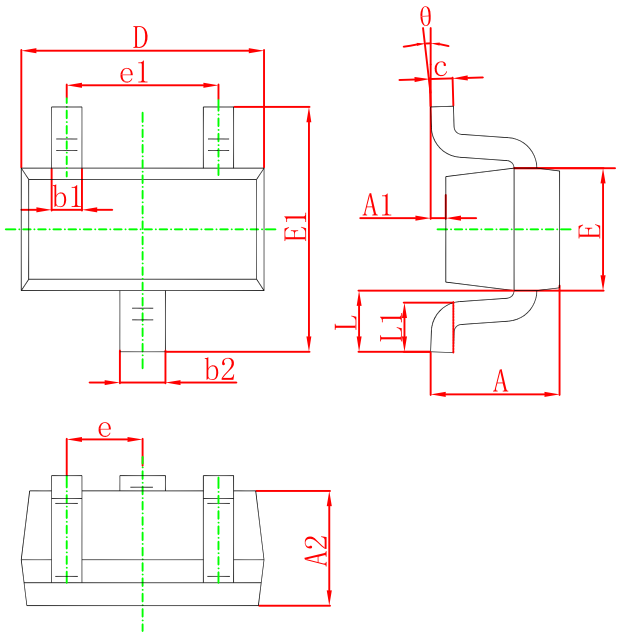






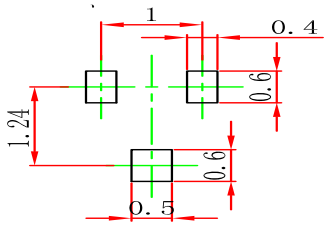


Package Outline Dimensions (SOT-523)



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°

Suggested Pad Layout (SOT-523)



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