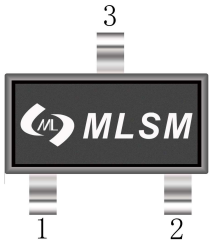
BAS40T/-04T/-05T/-06T

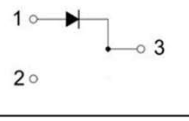
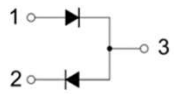
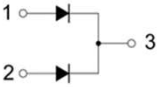
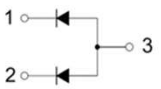
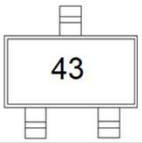
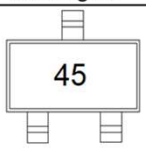
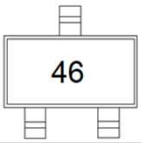
SCHOTTKY BARRIER DIODE

Features

- Low Turn-on Voltage
- Fast Switching



SOT-523 top view

BAS40T	BAS40-04T	BAS40-05T	BAS40-06T
			
Marking:43	Marking:44	Marking:45	Marking:46
			

Pb-Free RoHS Halogen-Free

Maximum Ratings(T_a=25℃ unless otherwise noted)

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

ELECTRICAL CHARACTERISTICS(Ta=25℃ unless otherwise specified)

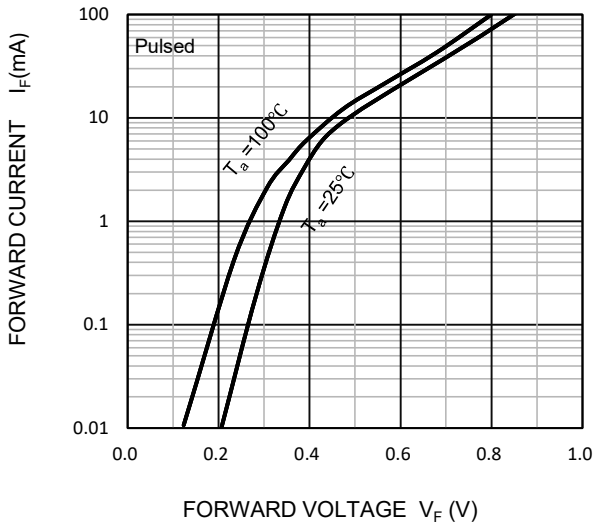
Symbol	Parameter	Condition	Min	Typ	Max	Unit
$V_{(BR)}$	Reverse breakdown voltage	I_R=10μA	40	--	--	V
V_{F1}	Forward voltage	I_F=1mA	--	--	0.38	V
V_{F2}		I_F=40mA	--	--	1	V
I_R	Reverse current	V_R=30V	--	--	0.2	μA
C_D	Diode capacitance	V_R=0, f=1MHz	--	--	5	pF
t_{rr}	Reverse recovery time	I_F=I_R=10mA, Irr=0.1XI_R,R_L=100Ω	--	--	5	ns

Ordering Information (Example)

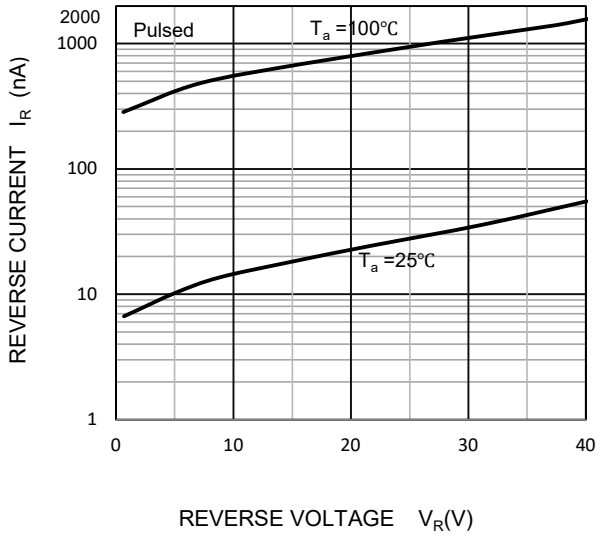
Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
BAS40T	SOT-523	43	3,000	45,000	180,000	7"reel
BAS40-04T	SOT-523	44	3,000	45,000	180,000	8"reel
BAS40-05T	SOT-523	45	3,000	45,000	180,000	7"reel
BAS40-06T	SOT-523	46	3,000	45,000	180,000	7"reel

Typical Operating Charac teristics

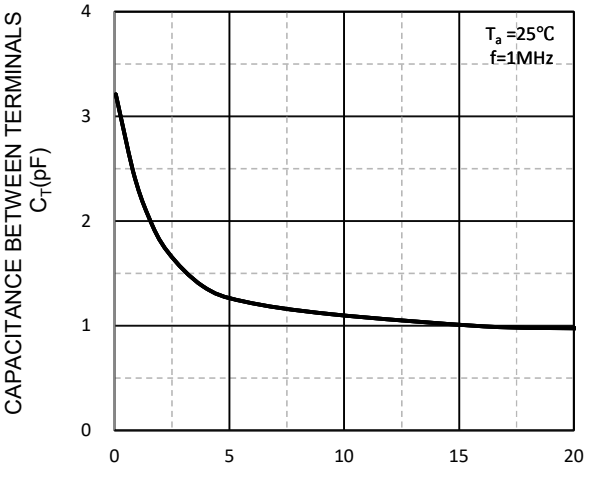
Forward Characteristics



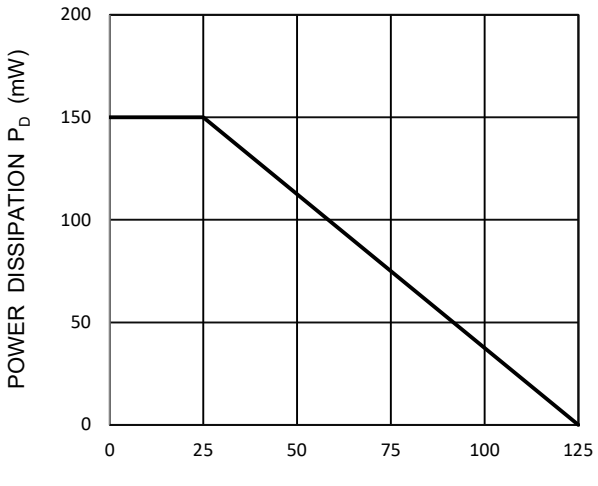
Reverse Characteristics



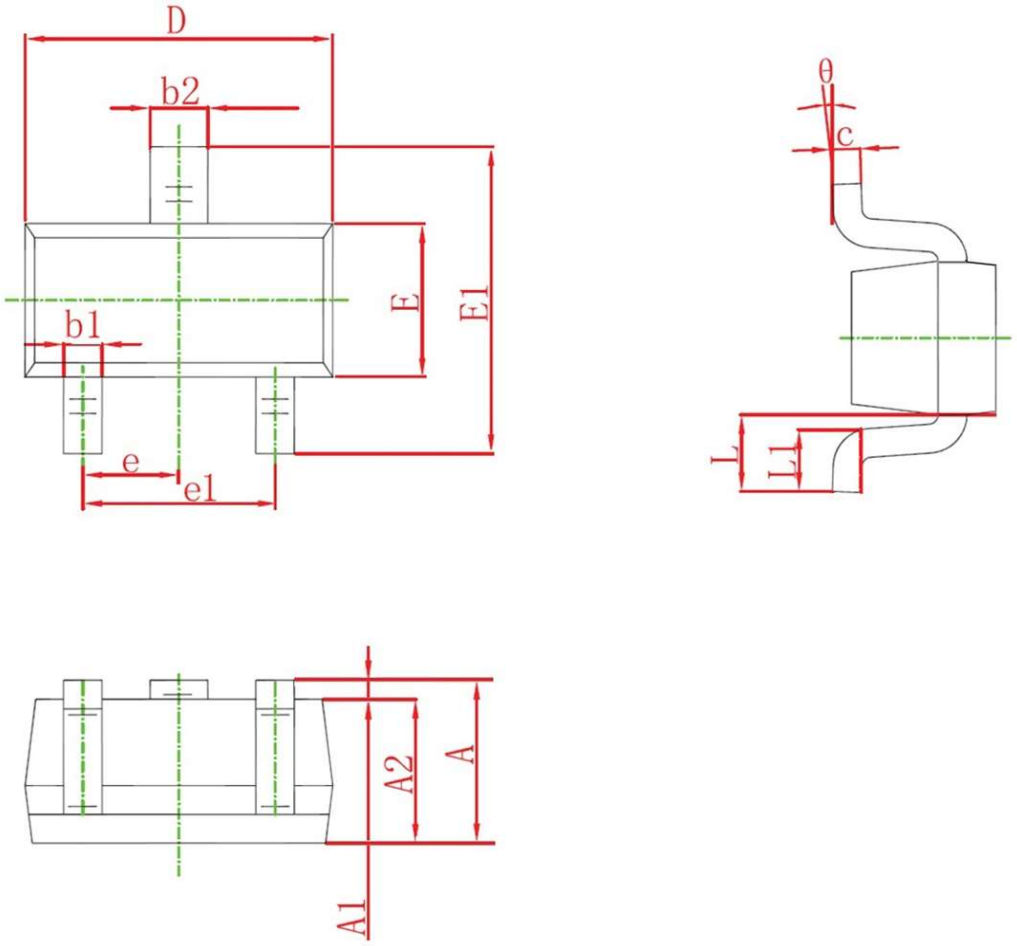
Capacitance Characteristics



Power Derating Curve



SOT-523 Package information



Symbol	Dimensions in Millimeters(mm)		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	0.500TYP		0.020TYP	
e1	0.900	1.100	0.035	0.043
L	0.400REF		0.016REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°