

Features

- Low forward voltage
- Fast Switching

BAS40W	BAS40W-04	BAS40W-05	BAS40W-06
			
Marking:43	Marking:44	Marking:45	Marking:46
			



SOT-323 top view



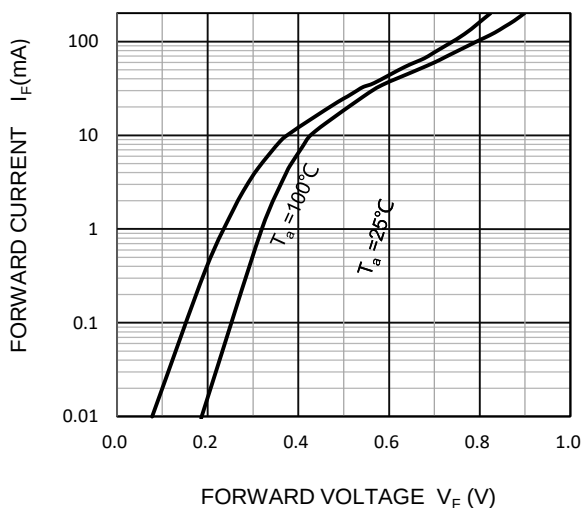
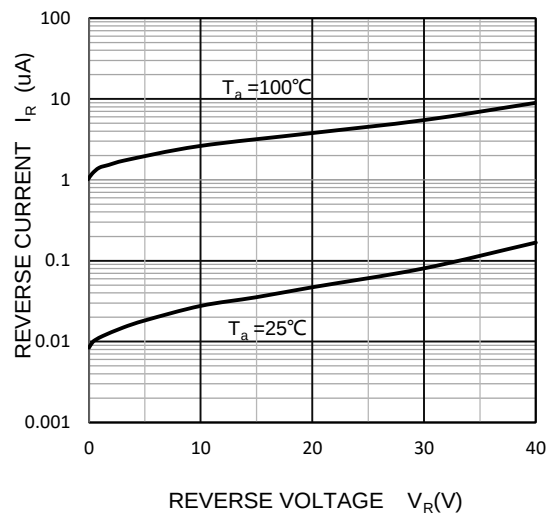
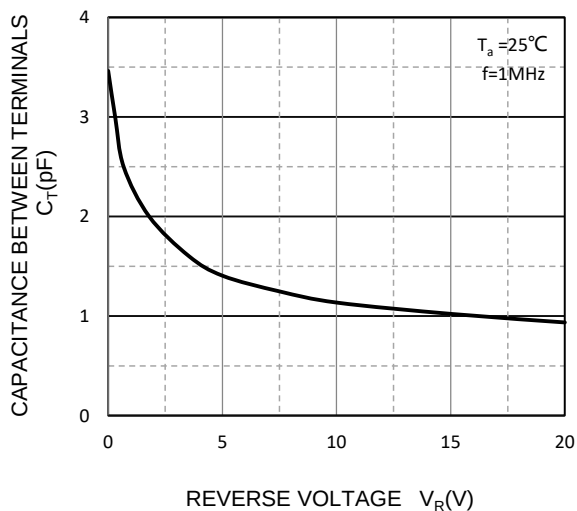
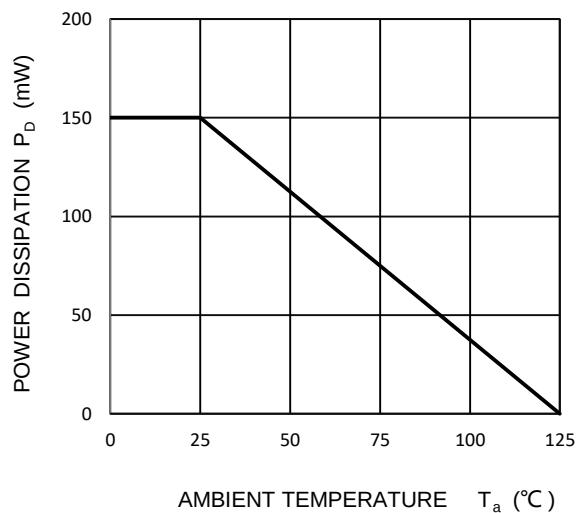
Halogen-Free

Maximum Ratings($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_R	DC Blocking Voltage	40	V
V_{RRM}	Peak repetitive peak reverse voltage		
V_{RWM}	Working peak reverse voltage		
I_{FM}	Forward Continuous Current	200	mA
P_D	Power dissipation	150	mW
$R_{\theta JA}$	Thermal resistance junction to ambient	667	$^{\circ}\text{C}/\text{W}$
T_J	Operating Junction Temperature Range	-40 ~ +125	$^{\circ}\text{C}$
T_{STG}	Storage Temperature Range	-55~ +150	$^{\circ}\text{C}$

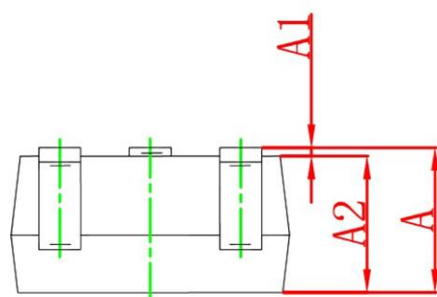
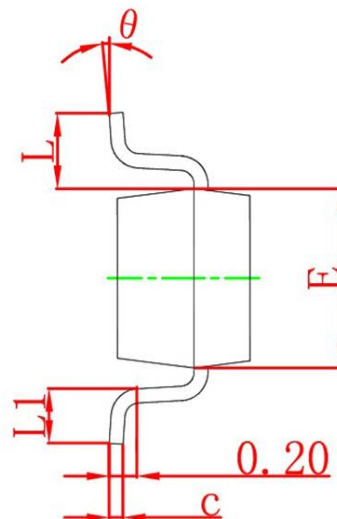
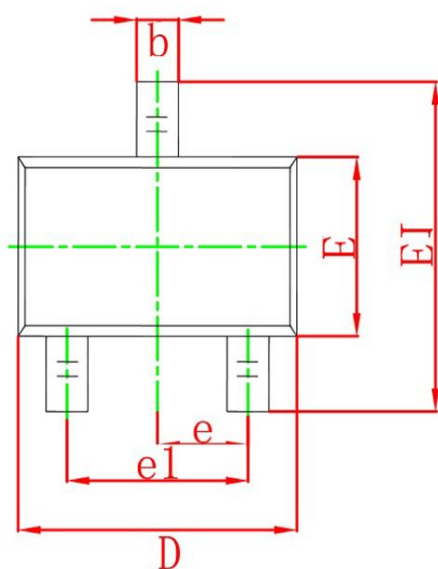
ELECTRICAL CHARACTERISTICS($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Symbol	Parameter	Condition	Min	Typ	Max	Unit
$V_{(BR)}$	Reverse breakdown voltage	$I_R=10\mu\text{A}$	40	--	--	V
I_R	Reverse voltage leakage current	$V_R=30\text{V}$	--	--	200	nA
V_F	Forward voltage	$I_F=1\text{mA}$	--	--	380	mV
		$I_F=40\text{mA}$	--	--	1000	
C_D	Diode capacitance	$V_R=0, f=1\text{MHZ}$	--	--	5	pF
t_{rr}	Reverse recovery time	$I_{tr}=1\text{mA}, I_R=I_F=10\text{mA}, R_L=100\Omega$	--	--	5	ns

Typical Operating Characteristics
Forward Characteristics

Reverse Characteristics

Capacitance Characteristics

Power Derating Curve

Ordering Information (Example)

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
BAS40W	SOT-323	43	3,000	45,000	180,000	7"reel
BAS40W-04	SOT-323	44	3,000	45,000	180,000	7"reel
BAS40W-05	SOT-323	45	3,000	45,000	180,000	7"reel
BAS40W-06	SOT-323	46	3,000	45,000	180,000	7"reel

SOT-323 Package information



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650TYP		0.026TYP	
e1	1.200	1.400	0.047	0.055
L	0.525REF		0.021REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°