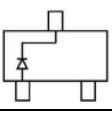
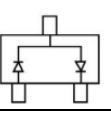
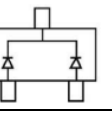
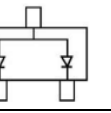
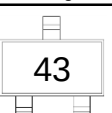
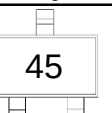
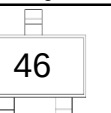
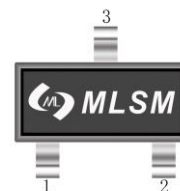


Features

- Low Forward voltage
- Fast switching

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



SOT-23 top view



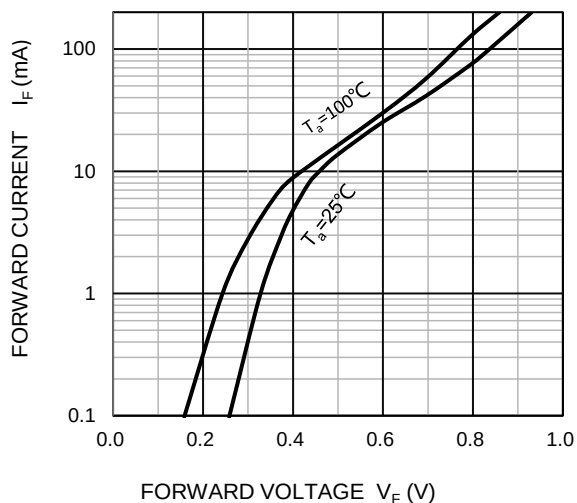
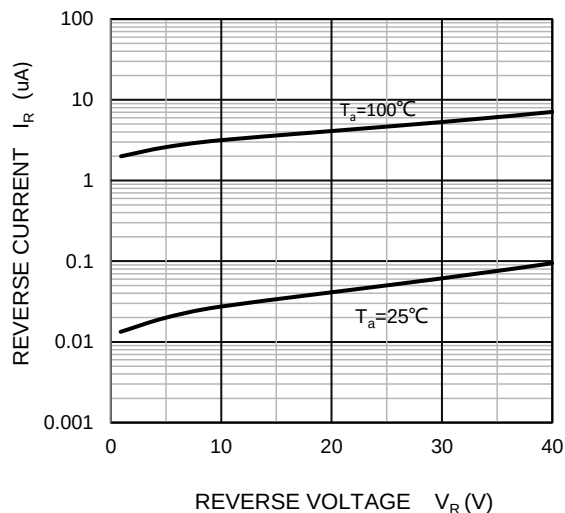
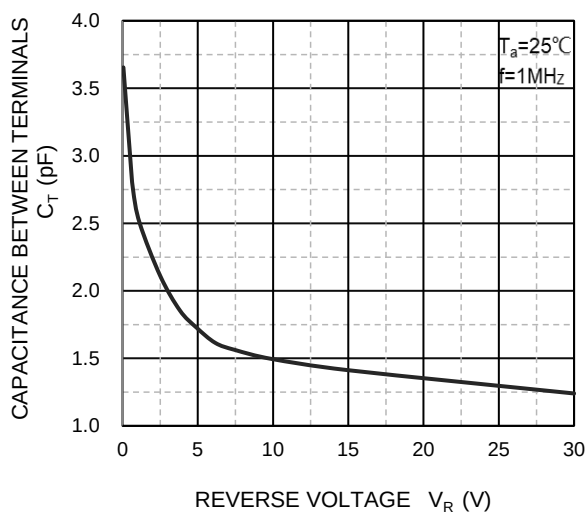
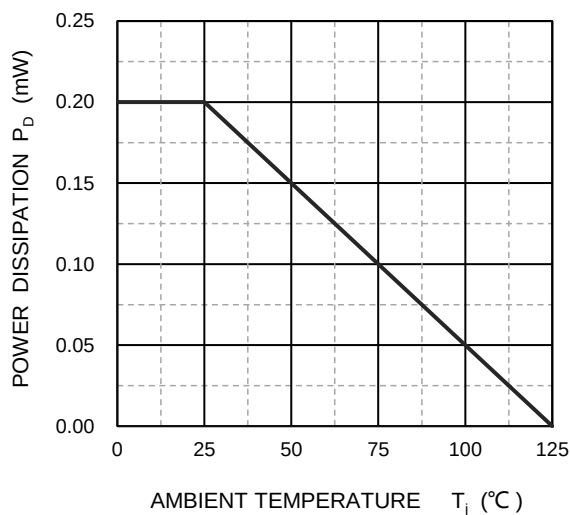
Halogen-Free

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

Symbol	Parameter	Value	Unit
V_{RRM}	Peak Repetitive Peak Reverse Voltage	40	V
V_R	DC Blocking Voltage		
V_{RWM}	Working Peak Reverse Voltage		
I_{FM}	Forward Continuous Current	200	mA
I_O	Average Rectified Output Current	200	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	0.6	A
P_D	Power Dissipation	200	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	500	$^{\circ}\text{C/W}$
T_J	Operating Junction Temperature Range	-40 ~ +125	$^{\circ}\text{C}$
T_{STG}	Storage Temperature Range	-55 ~ +150	$^{\circ}\text{C}$

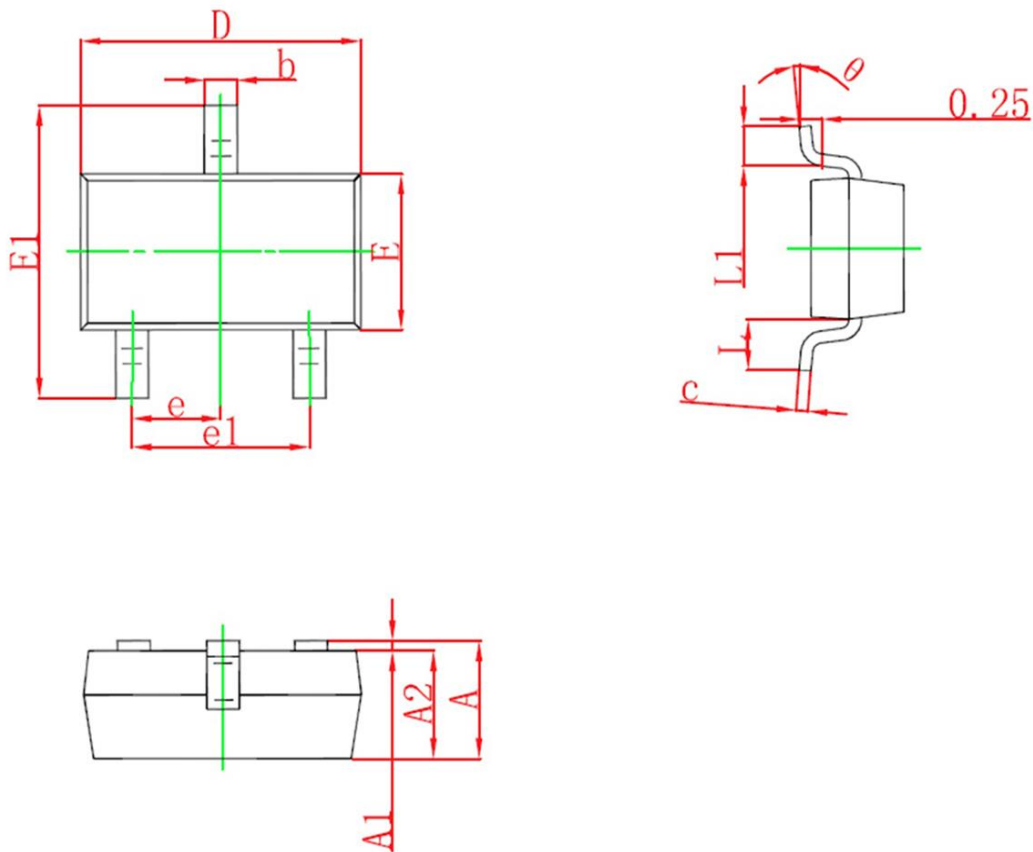
ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

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	mV
C_D	Diode capacitance	$V_R=0\text{V}$, $f=1\text{MHz}$	--	--	5	pF
t_{rr}	Reverse recovery time	$I_F=I_R=10\text{mA}$, $I_{tr}=1\text{mA}$, $R_L=100\Omega$	--	--	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
BAS40	SOT-23	43	3,000	45,000	180,000	7"reel
BAS40-04	SOT-23	44	3,000	45,000	180,000	7"reel
BAS40-05	SOT-23	45	3,000	45,000	180,000	7"reel
BAS40-06	SOT-23	46	3,000	45,000	180,000	7"reel

SOT-23 Package information



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E1	2.250	2.550	0.088	0.100
E	1.200	1.400	0.047	0.055
e	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°