

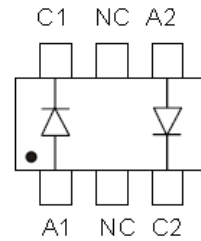


Features

- Fast switching speed
- Low turn-on voltage

Typical Applications

- High speed switching application
- Circuit protecting
- Voltage clamping



SOT-563

Mechanical Data

- Case: SOT-563
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
BAS40V□	SOT-563	3000pcs / Tape & Reel	43

Note for □: none is for Lead-free package
 "G" is for Halogen Free package

Maximum Ratings (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Repetitive Peak Reverse Voltage	V _R RM	40	V
Working Peak Reverse Voltage	V _R WM		
DC Blocking Voltage	V _R		
Forward Continuous Current	I _F	200	mA
Peak Forward Surge Current, 1μs Single Half-sine-wave	I _{FSM}	0.6	A
Power Dissipation	P _D	150	mW

Thermal Characteristics

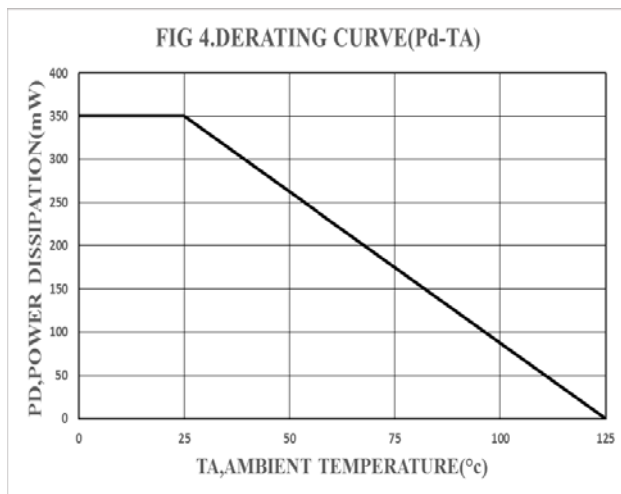
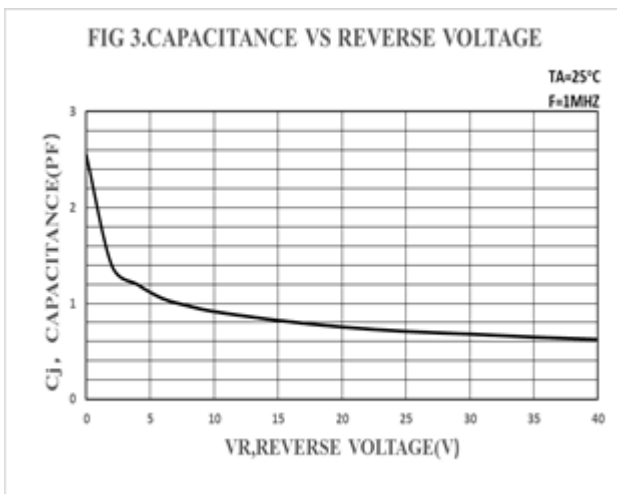
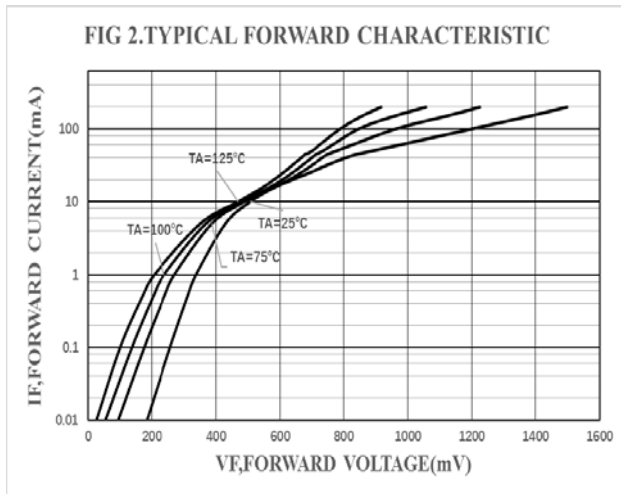
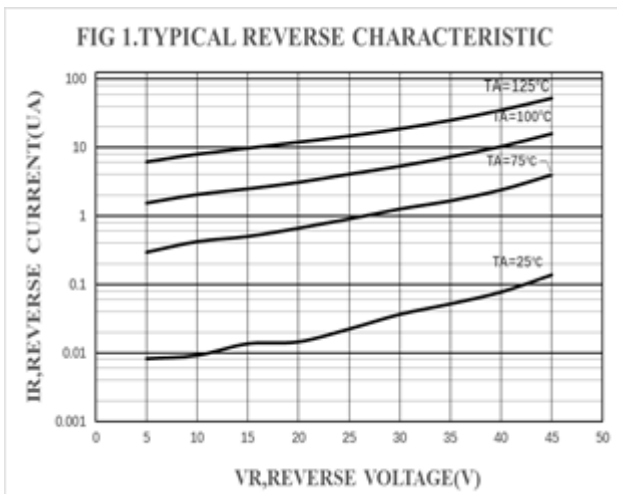
Parameter	Symbol	Value	Unit
Thermal Resistance Junction-to-Air	R _{θJA}	667	°C/W
Operating Junction Temperature Range	T _J	125	°C
Storage Temperature Range	T _{STG}	-65 ~ +150	°C



Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

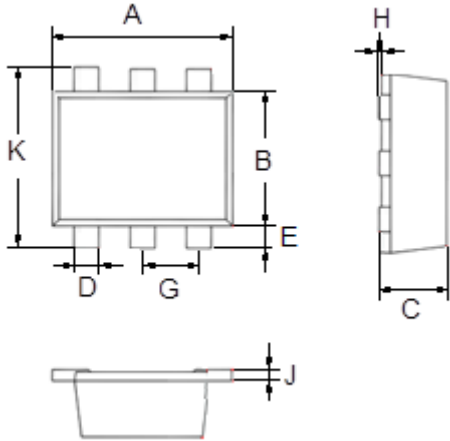
Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	V_R	$I_R = 10\mu\text{A}$	40	-	-	V
Forward Voltage	V_F	$I_F = 1.0\text{mA}$ $I_F = 40\text{mA}$	-	-	0.38 1	V
Maximum Peak Reverse Current	I_R	$V_R = 30\text{V}$	-	-	200	nA
Total Capacitance	C_J	$V_R = 0, f = 1.0\text{MHz}$	-	-	5	pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 10\text{mA}$, $I_{rr} = 0.1 \times I_R, R_L = 100\Omega$	-	-	5	ns

Ratings and Characteristic Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)





Package Outline Dimensions (Unit: mm)



SOT-563		
Dimension	Min.	Max.
A	1.500	1.700
B	1.100	1.300
C	0.525	0.600
D	0.170	0.270
E	0.100	0.300
G	0.450	0.550
H	0.000	0.050
J	0.090	0.160
K	1.500	1.700

Package Outline Dimensions (Unit: mm)

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