

Features

- Fast switching.
- Low forward voltage drop.
- Ultra-small surface mount package.
- PN junction guard ring for transient and ESD protection.

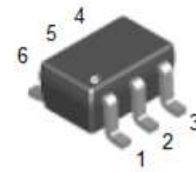
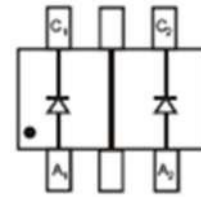


Typical Applications

- High speed switching applications.
- Circuit protecting.
- Voltage clamping.

Mechanical Data

- Case: SOT-363
- Terminals: solderable per MIL-STD-202, Method 208.



SOT-363

Ordering Information

Part Number	Package	Shipping	Marking Code
BAS70JW□	SOT-363	3000/Tape&Reel	K78

□: none is for Lead Free package;
“G” is for Halogen Free package.

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

Parameter	Symbol	Limits	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	70	V
Working Peak Reverse Voltage	V _{RWM}		
DC Reverse Voltage	V _R		
RMS Reverse voltage	V _{R(RMS)}	49	V
Forward Continuous Current *	I _F	70	mA
Non-Repetitive Peak Forward Surge Current@t _p =8.3ms	I _{FSM}	100	mA
Power Dissipation *	P _d	200	mW

* part mounted on FR-4 board with recommended pad layout

Thermal Characteristics

Parameter	Symbol	Limits	Unit
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	500	$^{\circ}\text{C}/\text{W}$
Operating Temperature Range	T_j	-55 to +125	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^{\circ}\text{C}$

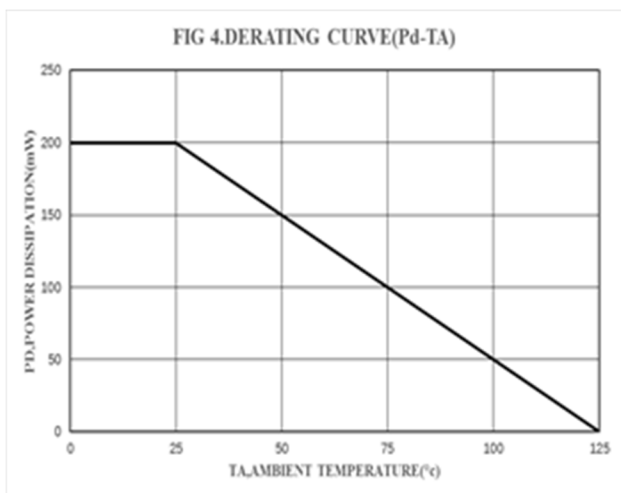
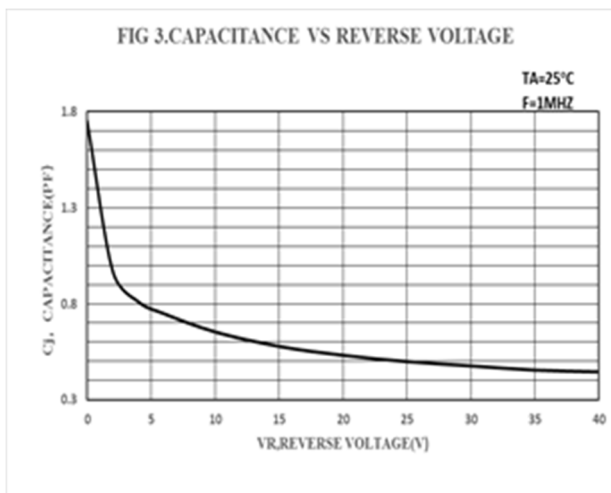
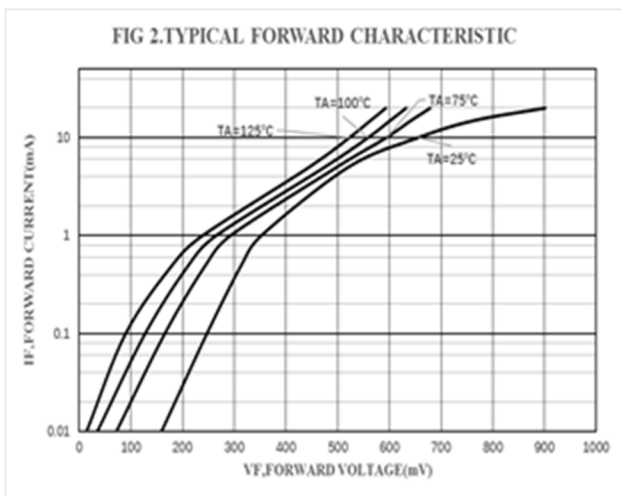
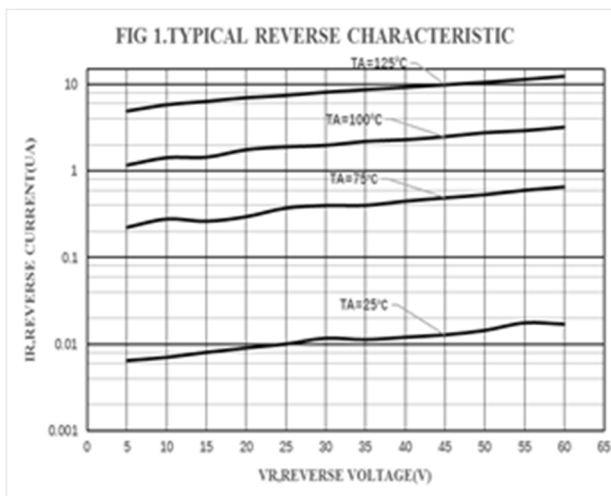
Electrical Characteristics (@ $T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward Voltage *1	V_F	$I_F=1\text{mA}$			0.41	V
		$I_F=15\text{mA}$			1	V
Reverse Leakage Current *2	I_R	$V_R=50\text{V}$			100	nA
Capacitance Between Terminals	C_T	$V_R=0\text{V}, f=1\text{MHz}$			2	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=10\text{mA}, I_{rr}=0.1 \cdot I_R, R_L=100\Omega$			5	ns

*1: pulse test, $t_p \leq 300\mu\text{s}$

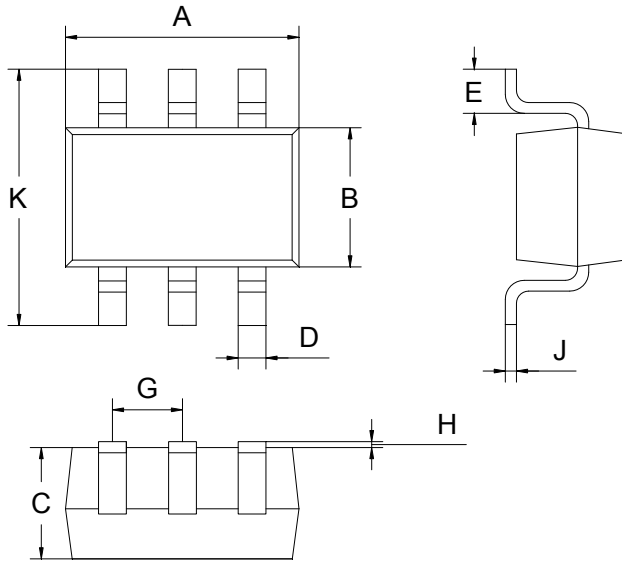
*2: pulse test, $t_p \leq 5\text{ms}$

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



Package Outline Dimensions(unit:mm)

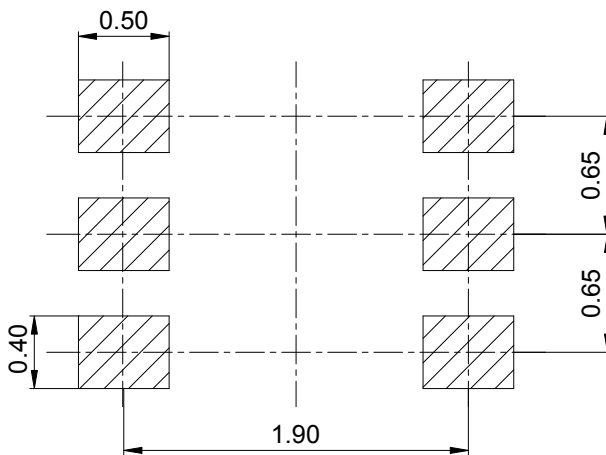
SOT-363



SOT-363		
Dim	Min	Max
A	2.00	2.20
B	1.15	1.35
C	0.85	1.05
D	0.15	0.35
E	0.25	0.40
G	0.60	0.70
H	0.02	0.10
J	0.05	0.15
K	2.20	2.40

Mounting Pad Layout(unit:mm)

SOT-363



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