

### Features

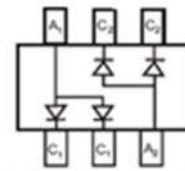
- Fast switching.
- Low forward voltage drop.
- Ultra-small surface mount package.
- PN junction guard ring for transient and ESD protection.



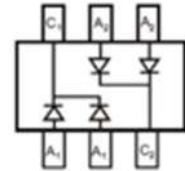
**HF**

### Mechanical Data

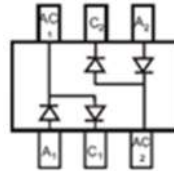
- Case: SOT-363
- Terminals: solderable per MIL-STD-202, Method 208.



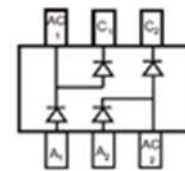
BAS70DW-06



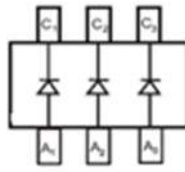
BAS70DW-05



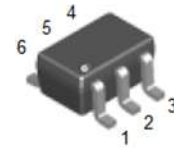
BAS70DW-04



BAS70BRW



BAS70TW



SOT-363

### Ordering Information

Part Number	Package	Shipping	Marking Code
BAS70TW□	SOT-363	3000/Tape&Reel	K73
BAS70DW-04□	SOT-363	3000/Tape&Reel	K74
BAS70DW-05□	SOT-363	3000/Tape&Reel	K71
BAS70DW-06□	SOT-363	3000/Tape&Reel	K76
BAS70BRW□	SOT-363	3000/Tape&Reel	K75

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

### Maximum Ratings (@ $T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Limits	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$		
Working Peak Reverse Voltage	$V_{RWM}$	70	V
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@ $t_p=8.3\text{ms}$	$I_{FSM}$	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	$^{\circ}C/W$
Operating Temperature Range	$T_j$	-55 to +125	$^{\circ}C$
Storage Temperature Range	$T_{STG}$	-55 to +150	$^{\circ}C$

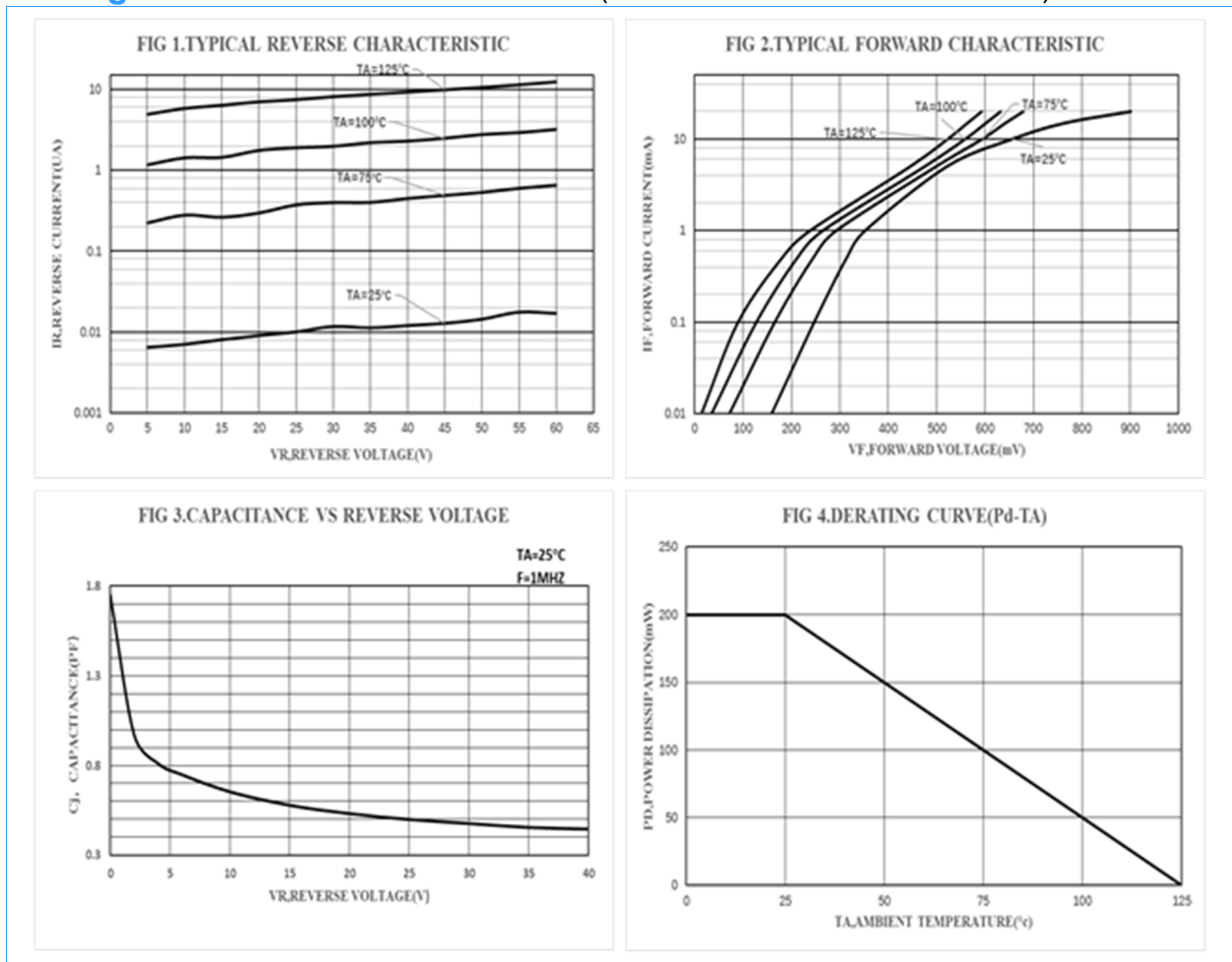
### Electrical Characteristics (@ $T_A=25^{\circ}C$ unless otherwise specified)

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

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

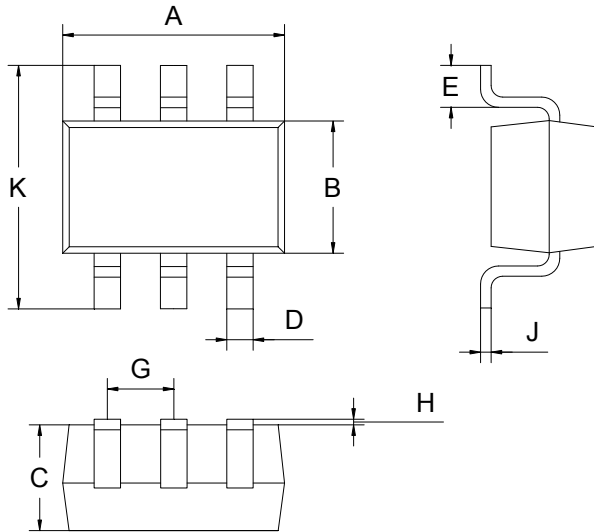
\*2: pulse test,  $t_p \leq 5ms$

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



### Package Outline Dimensions (unit:mm)

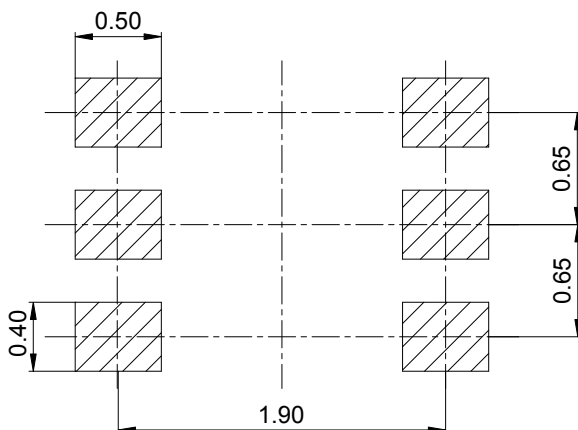
#### SOT-363



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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