

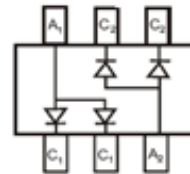
Features

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

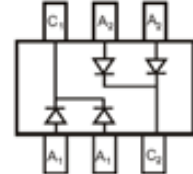
HF

Mechanical Data

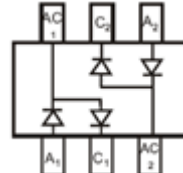
- Case: SOT-363
- Terminals: solderable per MIL-STD-202, Method 208



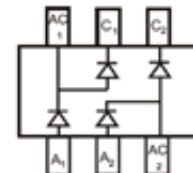
BAS70DW-06



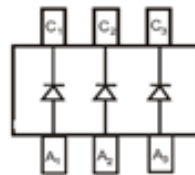
BAS70DW-05



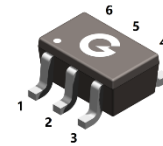
BAS70DW-04



BAS70BRW



BAS70TW



SOT-363

Ordering Information

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

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

Parameter	Symbol	Value	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

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation *1	P_D	200	mW
Thermal Resistance Junction-to-Air *1	$R_{\theta JA}$	500	$^{\circ}C/W$
Thermal Resistance Junction-to-Air *2	$R_{\theta JA}$	330	$^{\circ}C/W$
Thermal Resistance Junction-to-Case *2	$R_{\theta JC}$	230	$^{\circ}C/W$
Thermal Resistance Junction-to-Lead *2	$R_{\theta JL}$	290	$^{\circ}C/W$
Operating Temperature Range	T_J	-55 ~ +125	$^{\circ}C$
Storage Temperature Range	T_{STG}	-55 ~ +150	$^{\circ}C$

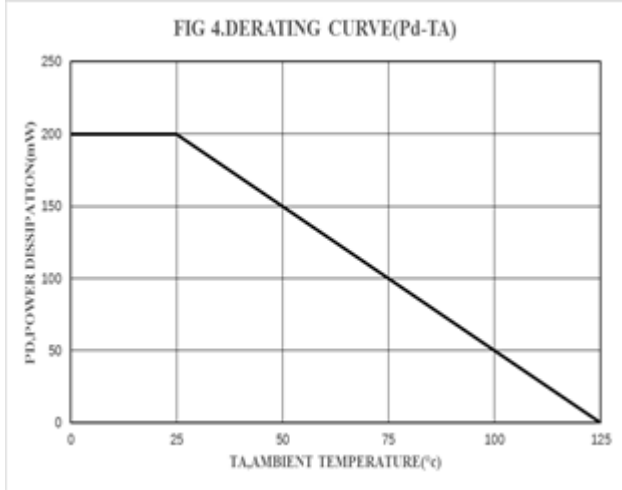
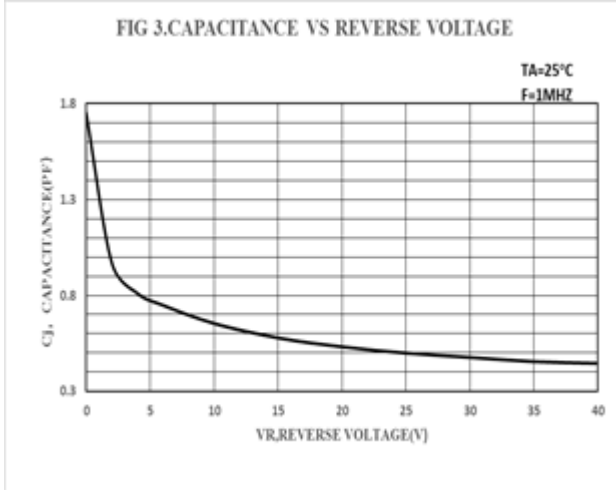
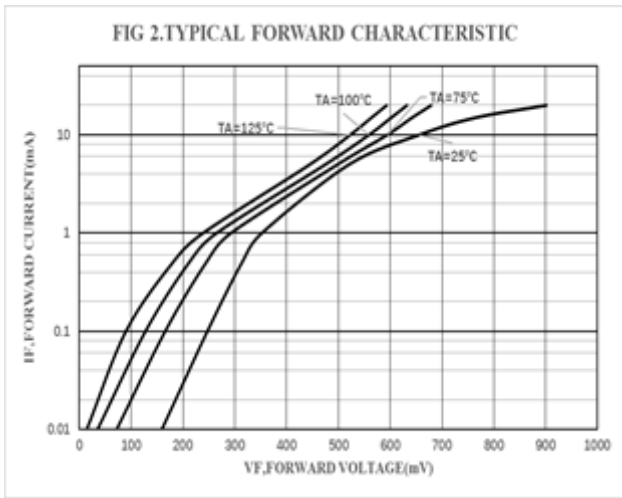
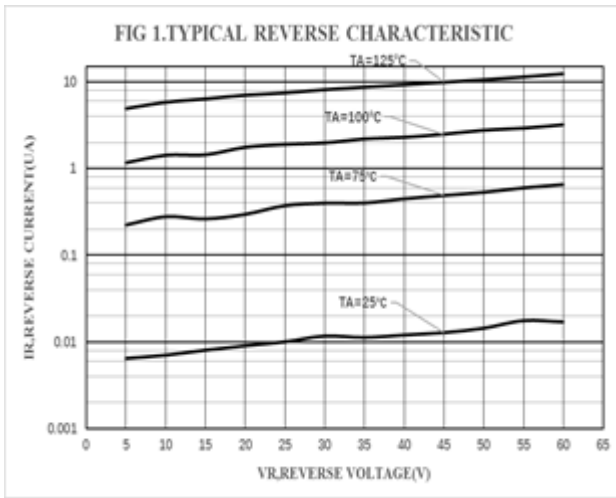
Electrical Characteristics (@ $T_A = 25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward Voltage *3	V_F	$I_F = 1mA$			0.41	V
		$I_F = 15mA$			1	V
Reverse Leakage Current *4	I_R	$V_R = 50V$			100	nA
Capacitance Between Terminals	C_T	$V_R = 0V, f = 1MHz$			2	pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 10mA, I_{rr} = 0.1 * I_R,$ $R_L = 100\Omega$			5	ns

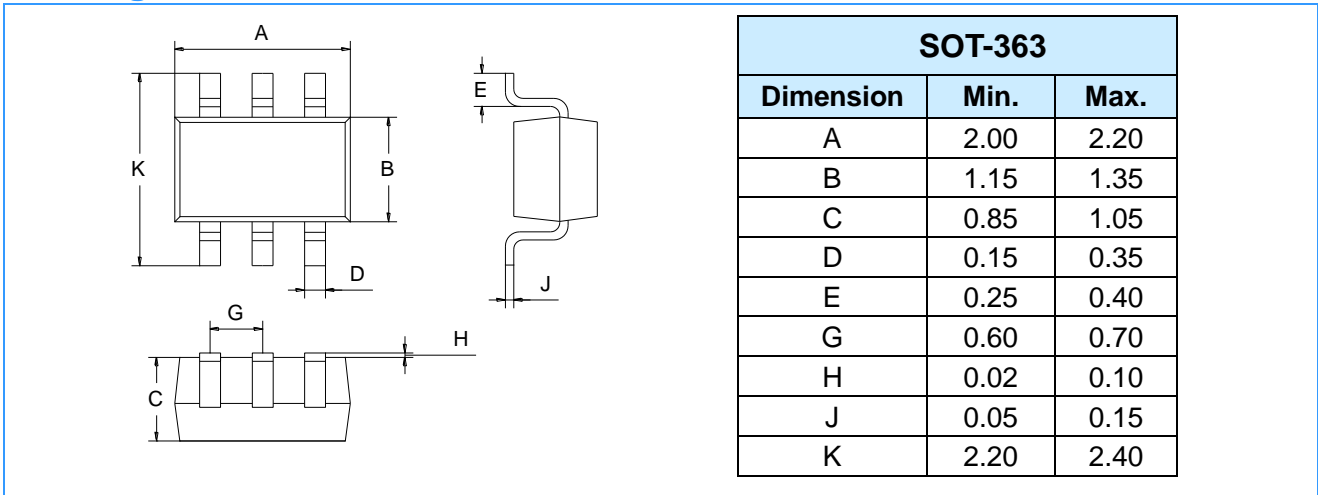
Notes:

1. The data tested by surface mounted on FR-4 board with recommended pad layout
2. The data tested by surface mounted on a 1 inch² FR-4 board with 2OZ copper
3. pulse test, $t_p \leq 300\mu s$
4. pulse test, $t_p \leq 5ms$

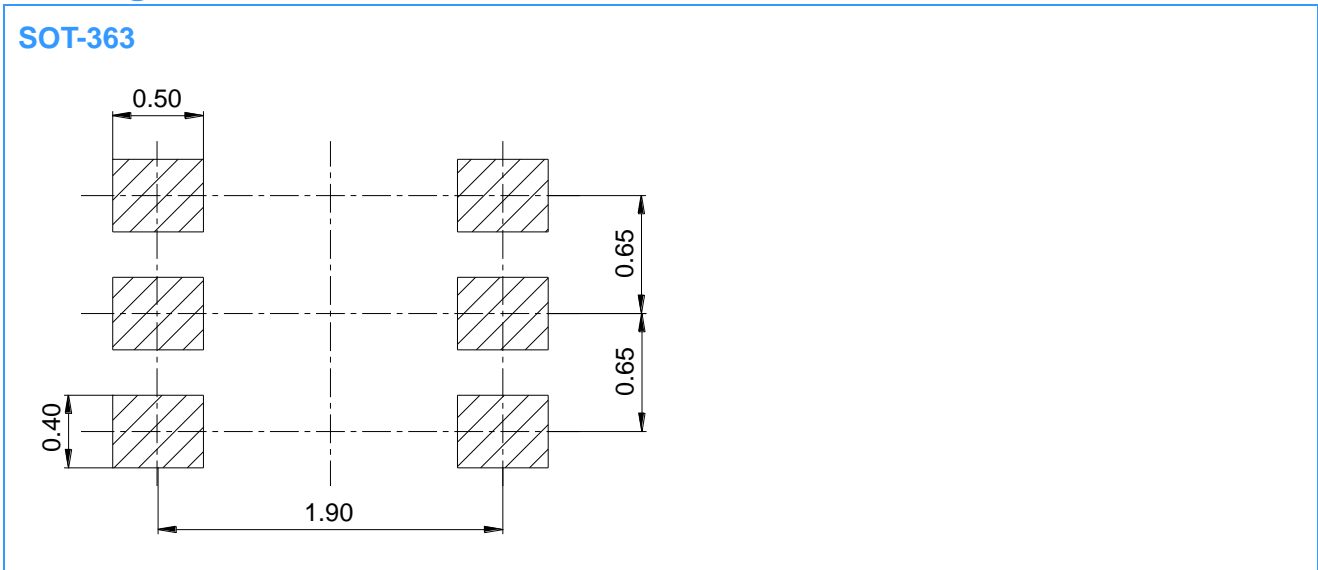
Ratings and Characteristic Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)



Package Outline Dimensions (Unit: mm)



Package Outline Dimensions (Unit: mm)



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