



SURFACE MOUNT SCHOTTKY DIODE ARRAYS

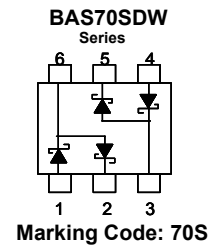
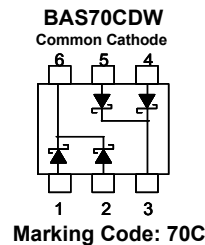
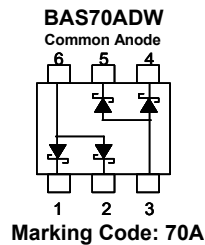
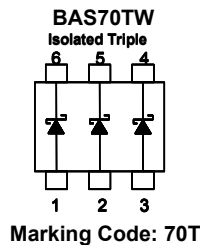
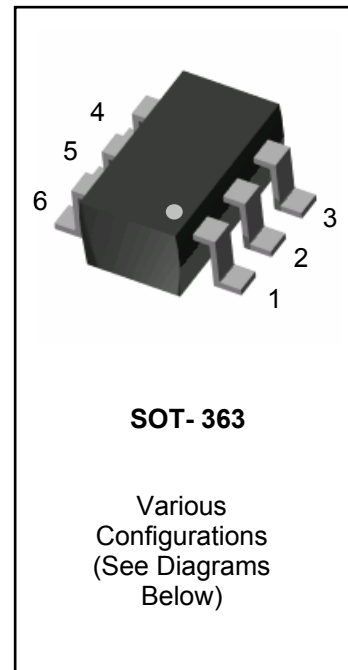
These devices feature electrically-isolated Schottky diodes connected in various configurations housed in a very small SOT-363 (SC70-6L)

FEATURES

- Maximum forward voltage @ 1.0mA of 0.41V
- Maximum leakage current @ 50V of 100nA
- Reverse voltage rating of 70V
- Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

APPLICATIONS

- Rail-to-rail ESD protection
- Overshoot and undershoot switching control
- Mobile phones and accessories
- Video game consoles connector ports



MAXIMUM RATINGS (Per Diode) $T_J = 25^\circ\text{C}$ Unless otherwise noted

Rating	Symbol	Value	Units
Repetitive Peak Reverse Voltage	V_{RRM}	70	V
Continuous Reverse Voltage	V_R	70	V
Continuous Forward Current	I_F	200	mA
Non-repetitive Peak Forward Current, $t = 1\text{sec}$, Square Wave	I_{FSM}	0.6	A
Total Power Dissipation (Note 1)	P_{tot}	225	mW
Operating Junction Temperature Range	T_J	-55 to +125	$^\circ\text{C}$
Storage Temperature Range ⁸	T_{stg}	-55 to +125	$^\circ\text{C}$

Note 1. FR-5 Board 1.0 x 0.75 x 0.062 in.

THERMAL CHARACTERISTICS

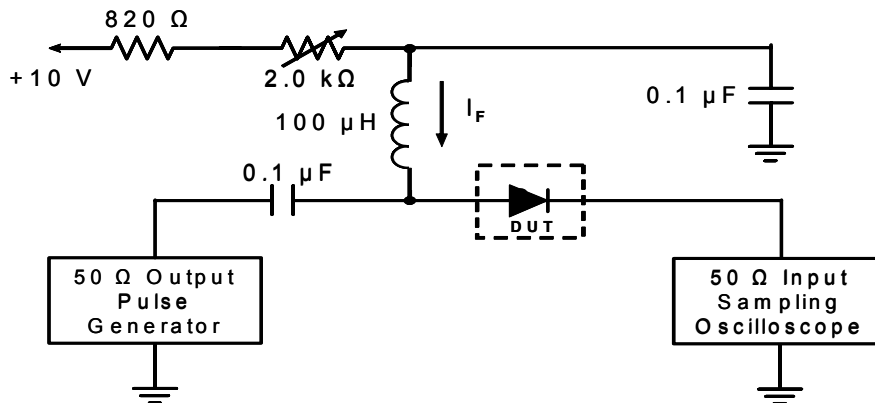
Characteristic	Symbol	Value	Units
Thermal Resistance, Junction to Ambient	R_{thja}	556	$^\circ\text{C/W}$



ELECTRICAL CHARACTERISTICS (Per Diode) $T_j = 25^\circ\text{C}$ Unless otherwise noted

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Breakdown Voltage (Note 1)	V_{BR}	$I_{BR} = 100 \mu\text{A}$	70	-	-	V
Forward Voltage (Note 1)	V_F	$I_F = 1.0 \text{ mA}$	-	-	0.41	V
		$I_F = 10 \text{ mA}$	-	-	0.75	
		$I_F = 15 \text{ mA}$	-	-	1.0	
Reverse Leakage Current (Note 1)	I_R	$V_R = 50 \text{ V}$	-	-	100	nA
Junction Capacitance	C_D	0Vdc Bias, $f = 1 \text{ MHz}$	-	1.25	2.0	pF
Reverse Recovery Time (See Figure 1)	t_{rr}	$I_F = 10 \text{ mA}$, $I_R = 10 \text{ mA}$ $R_L = 100 \text{ Ohms}$; measured at $I_{R\text{rec}} = 1 \text{ mA}$	-	-	5	ns

Note 1: Short duration (<300us) test pulse to minimize self heating



- Notes: 1. A 2.0k Ω variable resistor adjusted for a forward current (I_F) to 10mA
2. Input pulse is adjusted to $I_{R(\text{peak})}$ is equal to 10mA

Figure 1. REVERSE RECOVERY TIME EQUIVALENT TEST CIRCUIT



TYPICAL CHARACTERISTIC CURVES (Per Diode)

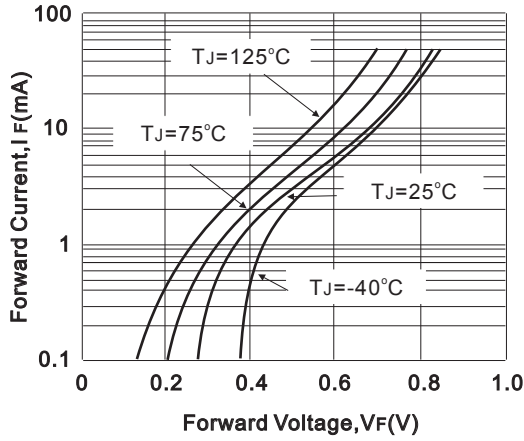


Fig.2 Typical Forward Characteristics

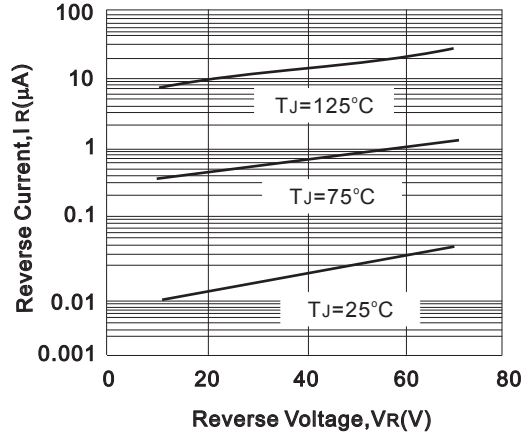


Fig.3 Typical Reverse Characteristics

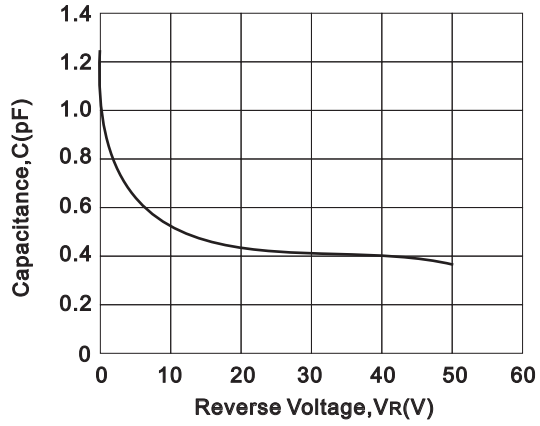


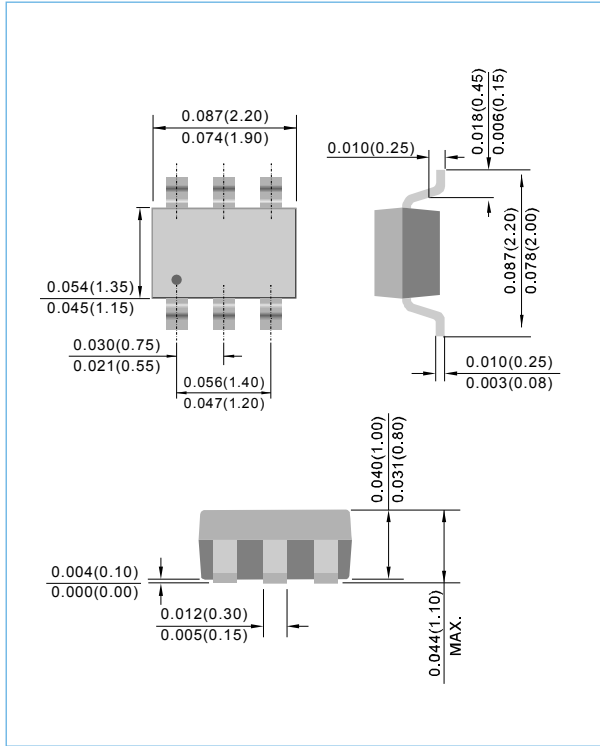
Fig.4 Typical Reverse Characteristics



PACKAGE LAYOUT AND SUGGESTED PAD DIMENSIONS

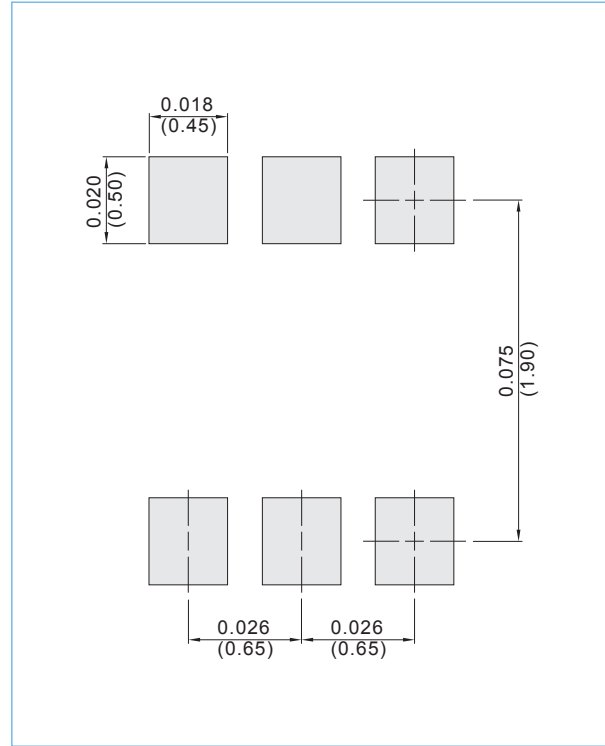
SOT-363

Unit : inch(mm)



SOT-363

Unit : inch(mm)



ORDERING INFORMATION

BAS70xxx T/R7 - 7" reel, 3K units per reel

BAS70xxx T/R13 - 13" reel, 10K units per reel



BAS70TW/ADW/CDW/SDW

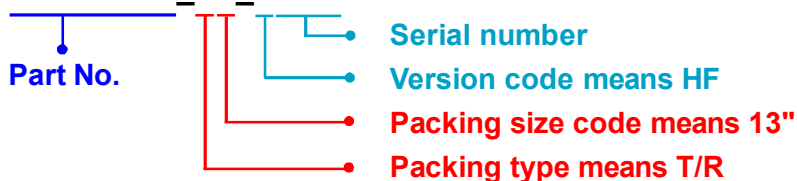
Part No_packing code_Version

BAS70TW_R1_00001

BAS70TW_R2_00001

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



BAS70TW/ADW/CDW/SDW

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