



BAS70TW/ADW/CDW/SDW

SURFACE MOUNT SCHOTTKY DIODE ARRAYS

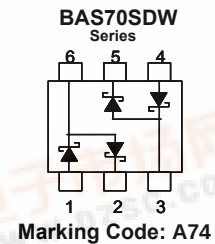
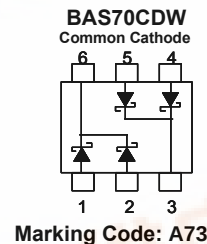
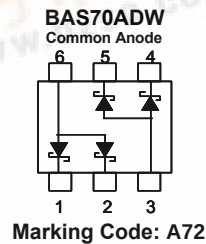
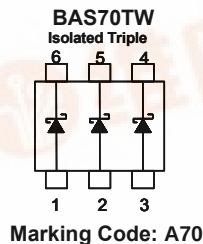
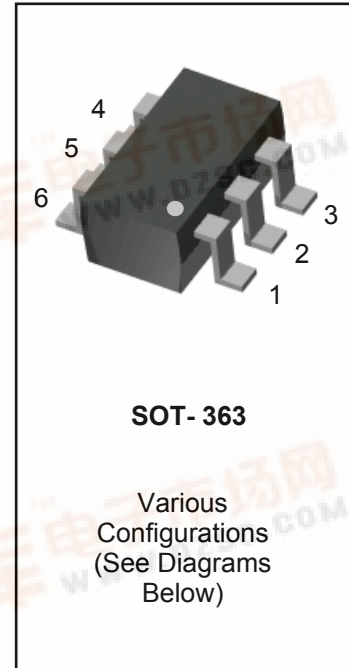
These devices feature electrically-isolated Schottky diodes connected in various configurations housed in a very small SOT-363 (SC70-6L)

FEATURES

- Maximum forward voltage @ 1.0mA of 0.41V
- Maximum leakage current @ 50V of 100nA
- Reverse voltage rating of 70V
- Also available in lead-free plating (100% matte tin finish)

APPLICATIONS

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



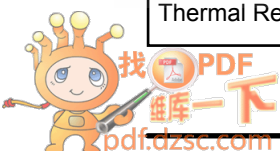
MAXIMUM RATINGS (Per Diode) $T_J = 25^\circ\text{C}$ Unless otherwise noted

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	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	$^\circ\text{C/W}$

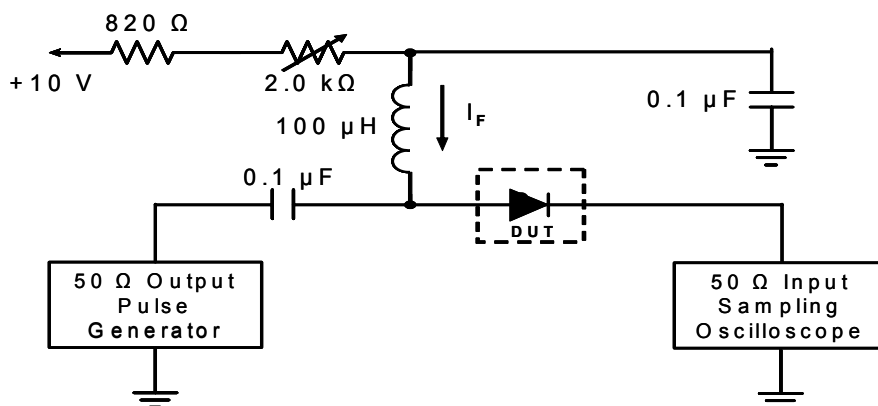




ELECTRICAL CHARACTERISTICS (Per Diode) $T_j = 25^\circ\text{C}$ Unless otherwise noted

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

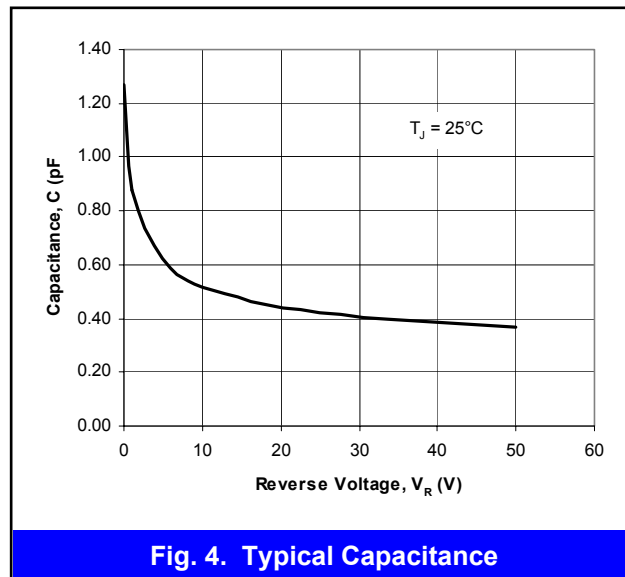
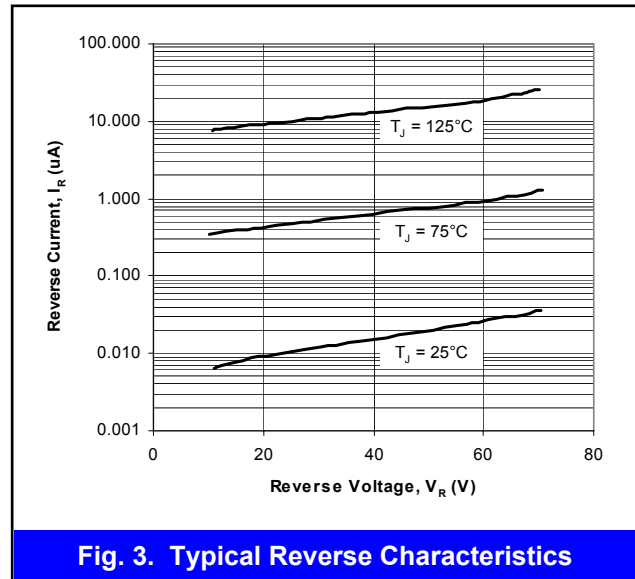
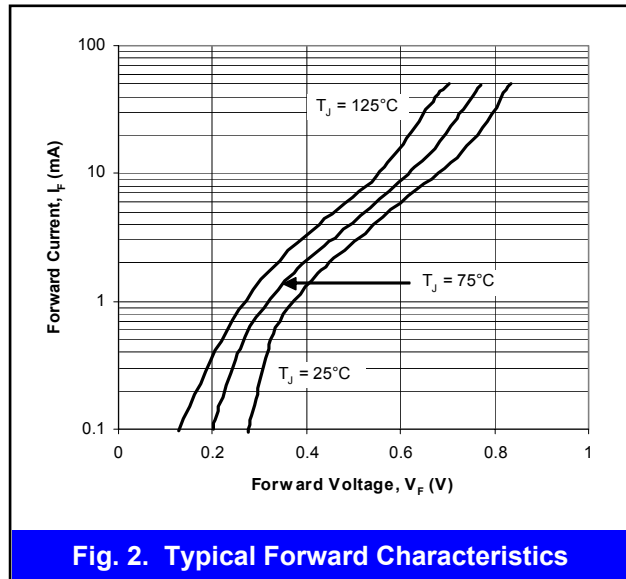


- Notes: 1. A 2.0kΩ variable resistor adjusted for a forward current (I_F) to 10mA
2. Input pulse is adjusted to $I_{R(\text{peak})}$ is equal to 10mA

Figure 1. REVERSE RECOVERY TIME EQUIVALENT TEST CIRCUIT

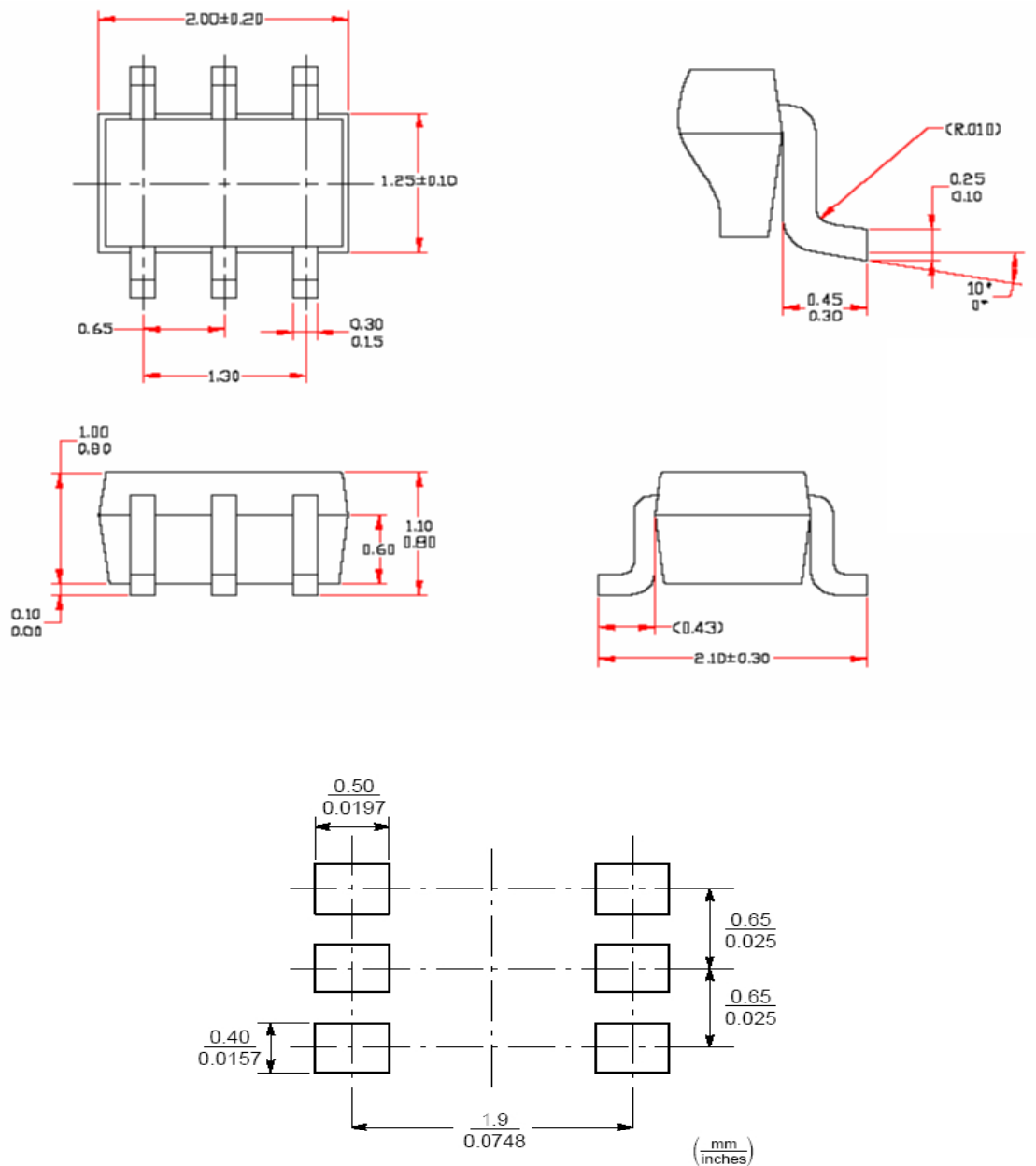


TYPICAL CHARACTERISTIC CURVES (Per Diode)





PACKAGE LAYOUT AND SUGGESTED PAD DIMENSIONS



ORDERING INFORMATION

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

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

Copyright PanJit International, Inc 2005

The information presented in this document is believed to be accurate and reliable. The specifications and information herein are subject to change without notice. Pan Jit makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose. Pan Jit products are not authorized for use in life support devices or systems. Pan Jit does not convey any license under its patent rights or rights of others.