



# BAT54STB-TB6

## SURFACE MOUNT SCHOTTKY DIODE ARRAYS

**VOLTAGE** 30 Volts    **POWER** 200mWatts

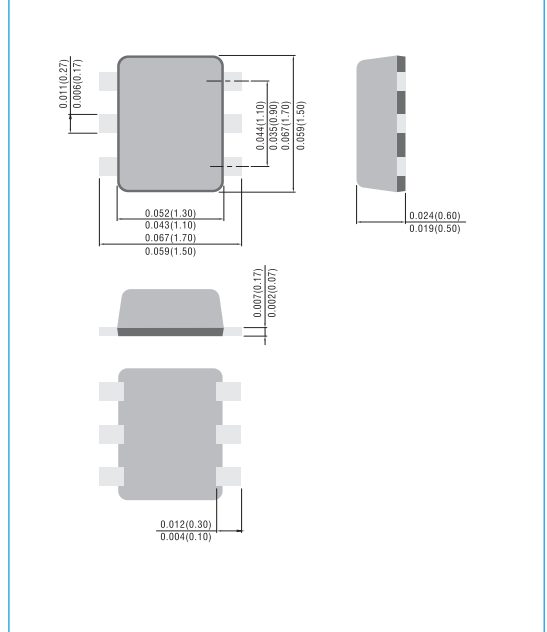
**SOT-563**    Unit: inch ( mm )

### FEATURES

- Isolated diode arrays for significant board space savings
- Surface mount package ideally suited for automatic insertion
- Extremely Fast Switching Speed
- Very Low VF: 0.347V (Typ) at IF = 10mA
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

- Case : SOT-563 plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx Weight : 0.003 gram
- Marking : TK



### ABSOLUTE RATINGS (each diode)

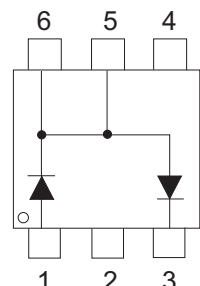
Parameter	Symbol	Value	Units
Maximum Reverse Voltage	V <sub>R</sub>	30	V
Peak Reverse Voltage	V <sub>RRM</sub>	30	V
Continuous Forward Current	I <sub>O</sub>	0.2	A

### THERMAL CHARACTERISTICS

Parameter	Symbol	Value	Units
Power Dissipation (Note 1)	P <sub>TOT</sub>	200	mW
Thermal Resistance, Junction to Ambient (Note 1)	R <sub>θJA</sub>	625	°C/W
Junction Temperature	T <sub>J</sub>	-55 to 125	°C
Storage Temperature	T <sub>STG</sub>	-55 to 150	°C

**NOTE:**

- 1. FR-4 Board = 70 x 60 x 1mm.



PRELIMINARY



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## ELECTRICAL CHARACTERISTICS (each diode) (TA=25°C, unless otherwise noted)

Parameter	Symbol	Test Condition	MIN.	TYP.	MAX.	Units
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=100 \mu A$	30	-	-	V
Reverse Current	$I_R$	$V_R=25 V$	-	-	2.0	$\mu A$
Forward Voltage	$V_F$	$I_F=0.1mA$	-	-	0.24	V
		$I_F=1.0mA$	-	-	0.32	
		$I_F=10mA$	-	0.347	0.40	
		$I_F=30mA$	-	-	0.50	
		$I_F=100mA$	-	-	1.00	
Total Capacitance	$C_T$	$V_R=1V, f=1.0MHz$	-	-	10	pF

### ELECTRICAL CHARACTERISTICS CURVES

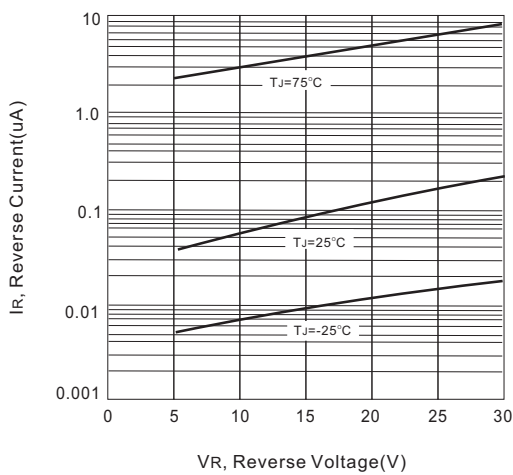


Fig. 1- Typical Reverse Leakage

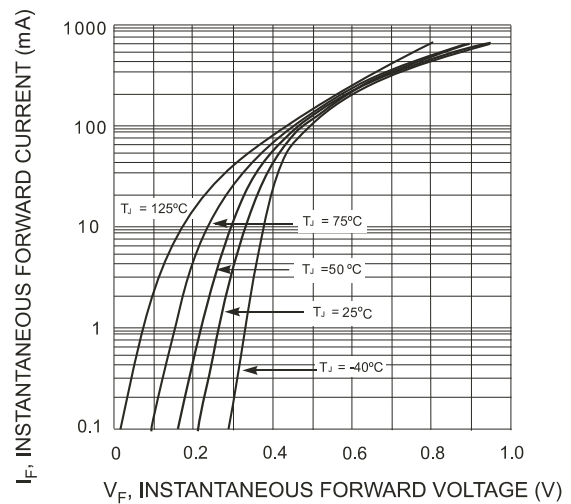


Fig. 2- Forward Characteristics

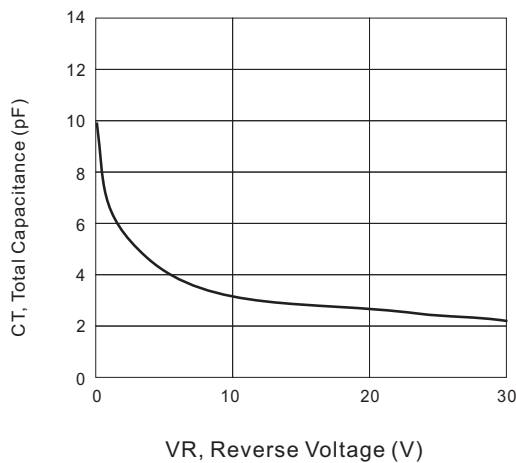


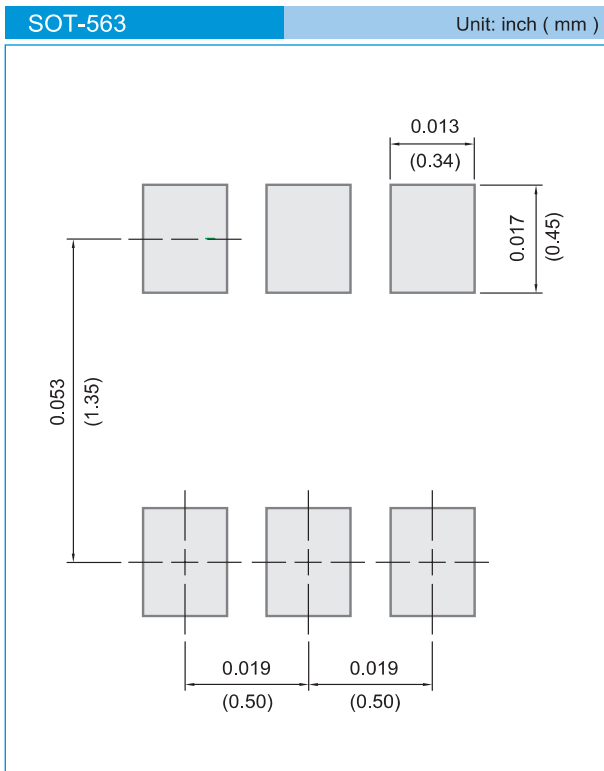
Fig. 3- Typical Total capacitance

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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information

T/R - 4K per 7" plastic Reel

T/R - 10K per 13" plastic Reel

## LEGAL STATEMENT

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