

# BAT54TB6-AU

## SURFACE MOUNT SCHOTTKY DIODE ARRAYS

**VOLTAGE** 30 Volt **POWER** 200mWatt

**SOT-563**

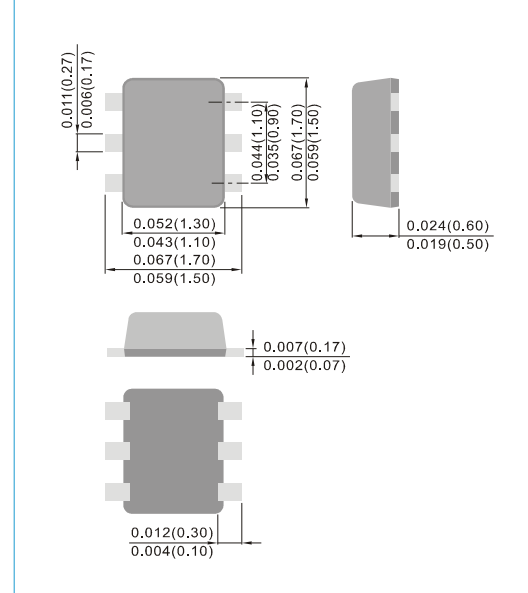
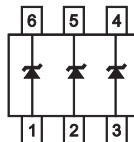
Unit : inch(mm)

### 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
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Acquire quality system certificate : TS16949
- AEC-Q101 qualified

### MECHANICAL DATA

- Case : SOT-563 plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx Weight : 0.0001ounces, 0.0026 grams
- Marking : TH



### ABSOLUTE MAXIMUM RATINGS (each diode) (TA=25°C, unless otherwise noted)

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>F</sub>	0.2	A

### THERMAL CHARACTERISTICS (TA=25°C, unless otherwise noted)

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.

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### ELECTRICAL CHARACTERISTICS (each diode) ( $T_A=25^{\circ}\text{C}$ , unless otherwise noted)

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

### ELECTRICAL CHARACTERISTICS CURVES

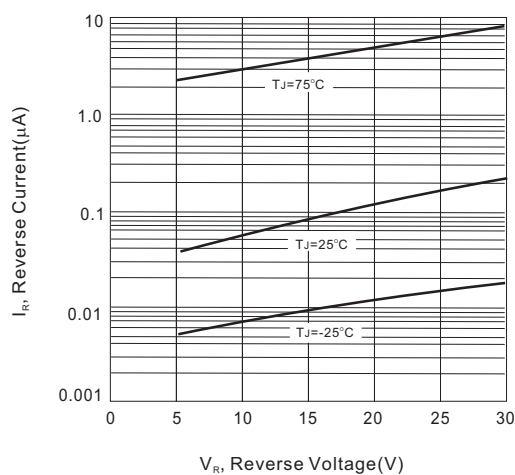


Fig. 1- Typical Reverse Leakage

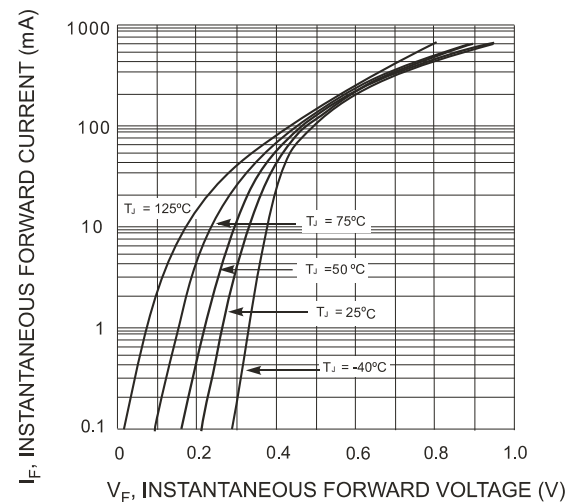


Fig. 2- Forward Characteristics

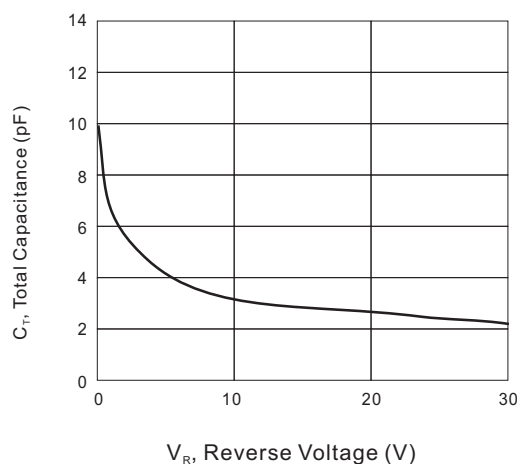
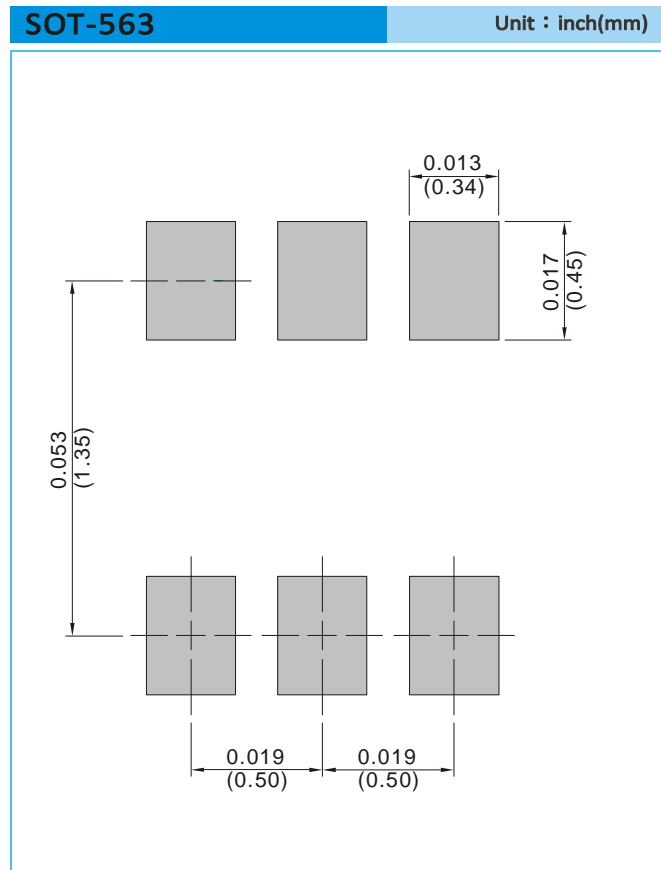


Fig. 3- Typical Total capacitance

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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information
  - T/R - 10K per 13" plastic Reel
  - T/R - 4K per 7" plastic Reel

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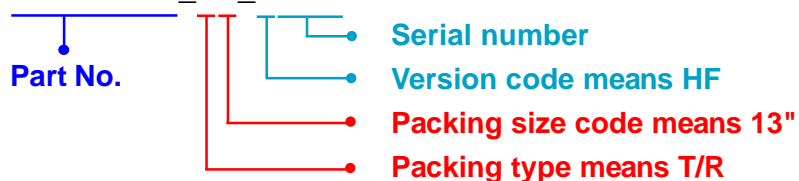
### Part No\_packing code\_Version

BAT54TB6-AU\_R1\_000A1

BAT54TB6-AU\_R2\_000A1

For example :

RB500V-40\_R2\_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> 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			



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