



# BAT54STB-TB6

## SURFACE MOUNT SCHOTTKY DIODE ARRAYS

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

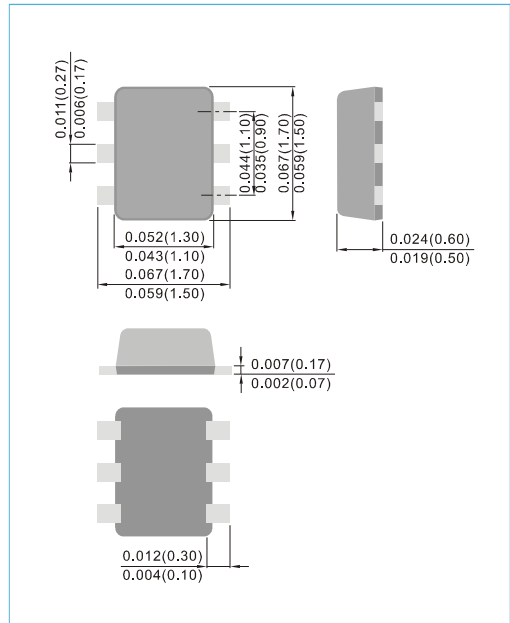
**SOT-563** Unit : inch(mm)

### 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
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

- Case : SOT-563 plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx Weight : 0.00009 ounces, 0.0026 grams
- Marking : TK



### ABSOLUTE RATINGS (each diode)

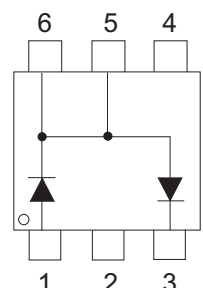
Parameter	Symbol	Value	Units
Maximum Reverse Voltage	V <sub>R</sub>	30	V
Peak Reverse Voltage	V <sub>RRM</sub>	30	V
Continuous Forward Current	I <sub>F</sub>	0.2	A

### 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.





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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	
		$I_F=100mA$	-	-	0.60	
Total Capacitance	$C_T$	$V_R=1V, f=1.0MHz$	-	-	10	pF



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## TYPICAL CHARACTERISTIC CURVES

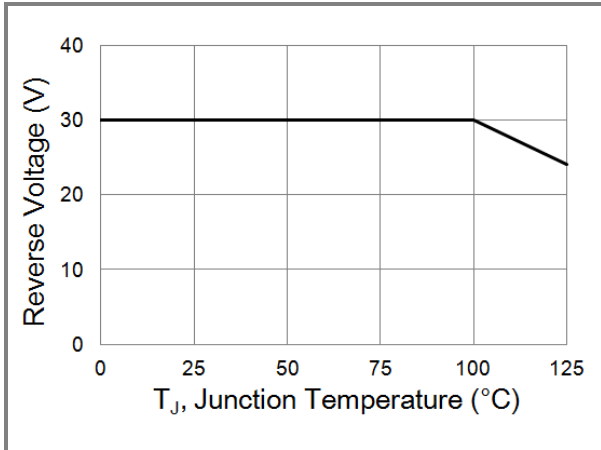


Fig.1 Operating Temperature Derating Curve

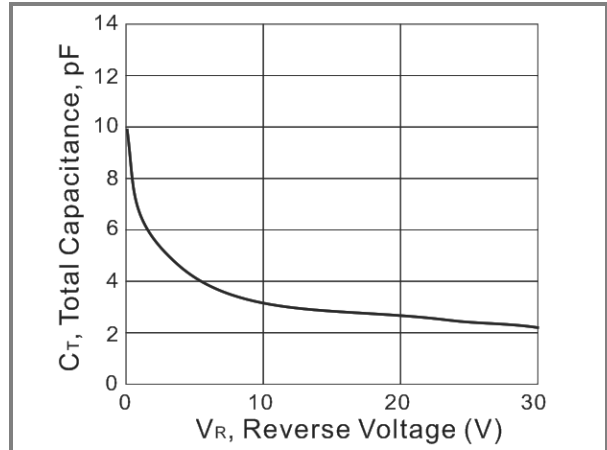


Fig.2 Typical Junction Capacitance

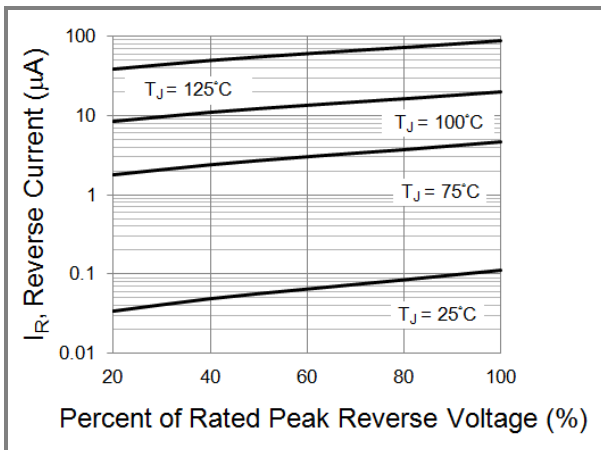


Fig.3 Typical Reverse Characteristics

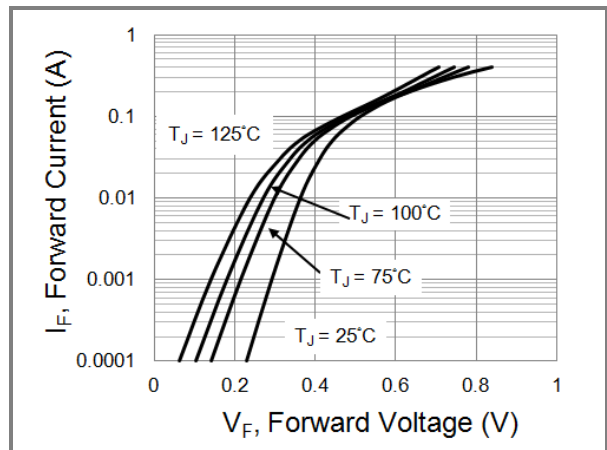
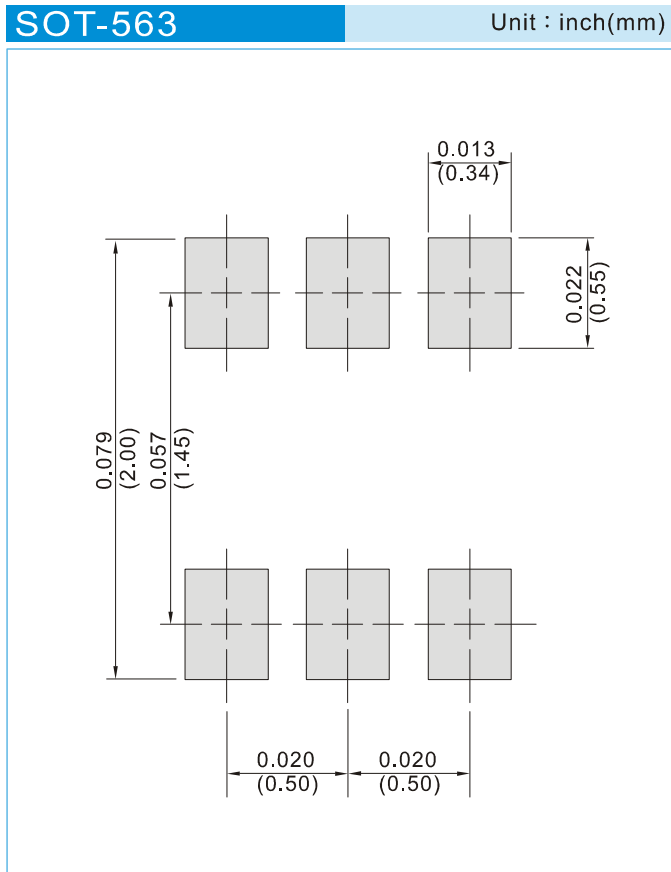


Fig.4 Typical Forward Characteristics



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information
  - T/R - 4K per 7" plastic Reel
  - T/R - 8K per 7" plastic Reel
  - T/R - 10K per 13" plastic Reel
  - T/R - 20K per 13" plastic Reel



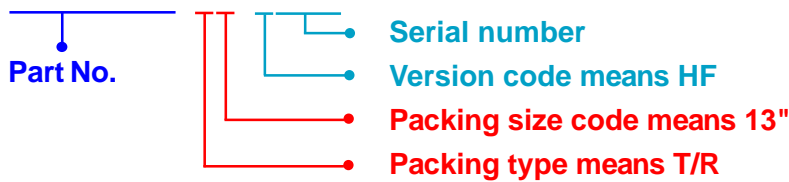
## BAT54STB-TB6

### Part No\_packing code\_Version

BAT54TB6\_R1\_00001  
 BAT54TB6\_R2\_00001  
 BAT54TB6\_R1\_00002  
 BAT54TB6\_R2\_00002

For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
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)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



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