



# BAT54STB-TB6

## SURFACE MOUNT SCHOTTKY DIODE ARRAYS

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

Unit : inch(mm)

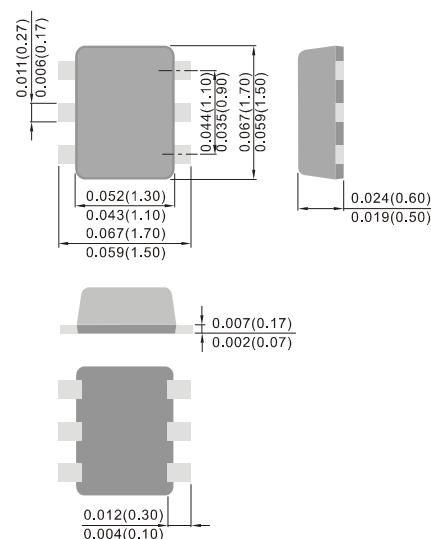
### FEATURES

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

### SOT-563



### ABSOLUTE RATINGS (each diode)

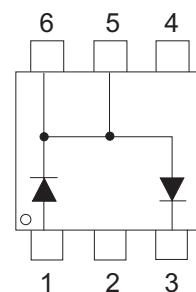
Parameter	Symbol	Value	Units
Maximum Reverse Voltage	V <sub>R</sub>	30	V
Peak Reverse Voltage	V <sub>RRM</sub>	30	V
Continuous Forward Current	I <sub>F</sub>	0.2	A

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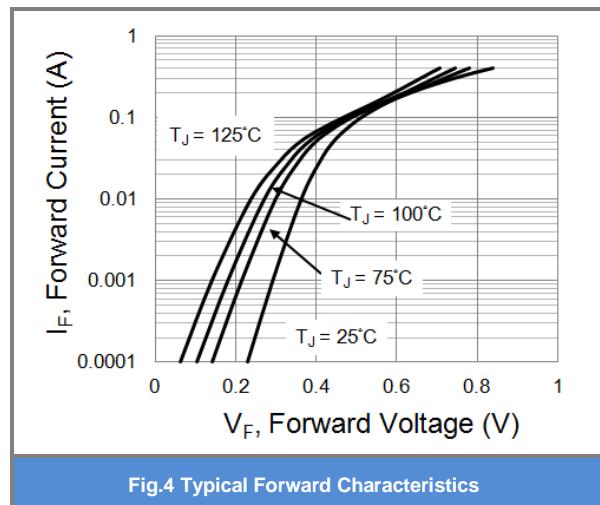
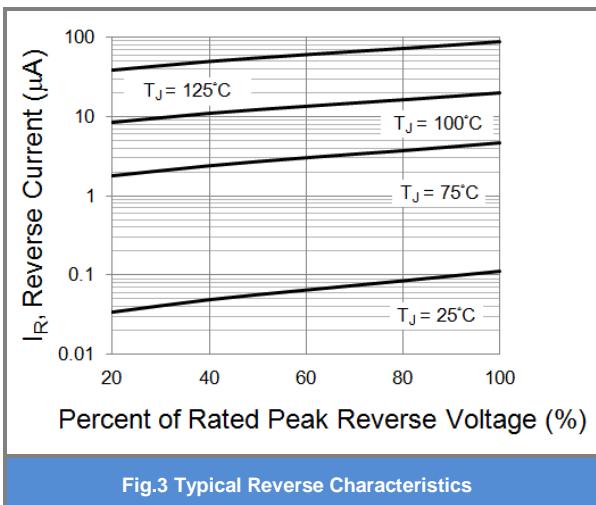
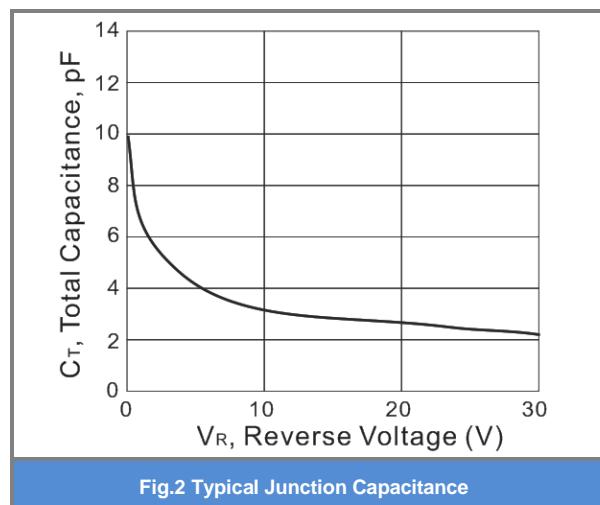
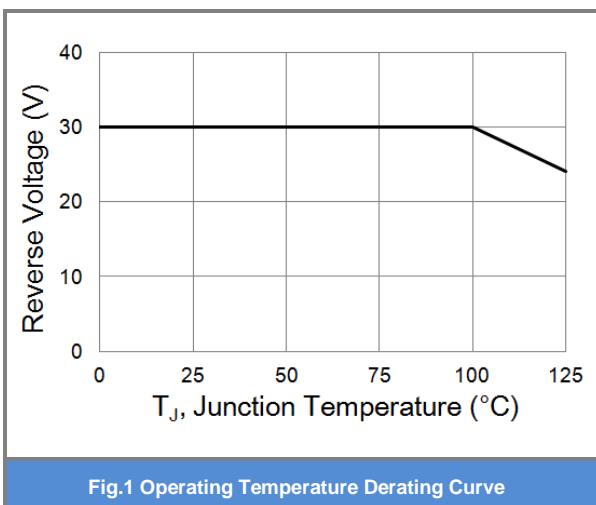
### ELECTRICAL CHARACTERISTICS (each diode) (TA=25°C, unless otherwise noted)

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	$V_F$	$I_F=0.1mA$ $I_F=1.0mA$ $I_F=10mA$ $I_F=30mA$ $I_F=100mA$	- - - - -	- - 0.347 - -	0.24 0.32 0.40 0.50 0.60	V
Total Capacitance	$C_T$	$V_R=1V, f=1.0MHz$	-	-	10	pF



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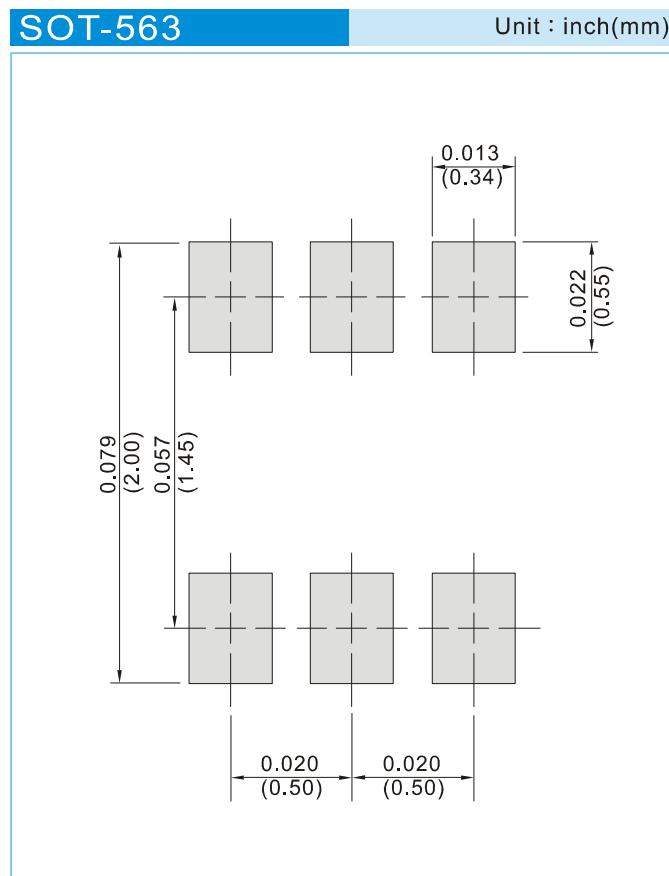
### TYPICAL CHARACTERISTIC CURVES





## BAT54STB-TB6

### 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

Part No.

- Serial number
- Version code means HF
- Packing size code means 13"
- Packing type means T/R

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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