

BAT54TB6 SERIES

SURFACE MOUNT SCHOTTKY DIODE ARRAYS

VOLTAGE 30 Volt **POWER** 200mWatt

SOT-563

Unit : inch(mm)

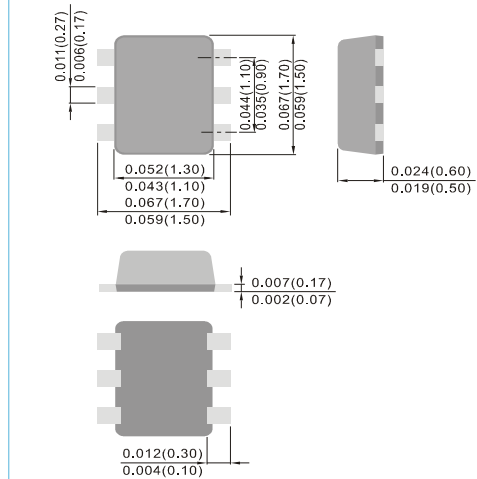
FEATURES

- 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
- 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 :

BAT54TB6	BAT54CTB6
TH	TY



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

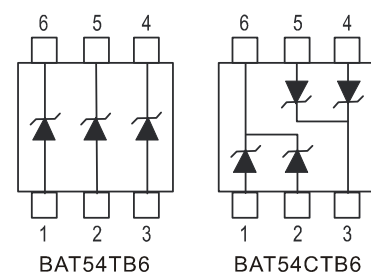
Parameter	Symbol	Value	Units
Maximum Reverse Voltage	V _R	30	V
Peak Reverse Voltage	V _{RRM}	30	V
Continuous Forward Current	I _F	0.2	A

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

Parameter	Symbol	Value	Units
Power Dissipation (Note 1)	P _{TOT}	200	mW
Thermal Resistance, Junction to Ambient (Note 1)	R _{θJA}	625	°C/W
Junction Temperature	T _J	-55 to 125	°C
Storage Temperature	T _{STG}	-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	μA
Forward Voltage	V_F	$I_F=0.1\text{mA}$	-	-	0.24	V
		$I_F=1\text{mA}$	-	-	0.32	
		$I_F=10\text{mA}$	-	0.347	0.4	
		$I_F=30\text{mA}$	-	-	0.5	
		$I_F=100\text{mA}$	-	-	0.6	
Total Capacitance	C_T	$V_R=1\text{V}$, $f=1\text{MHz}$	-	-	10	pF

TYPICAL CHARACTERISTIC CURVES

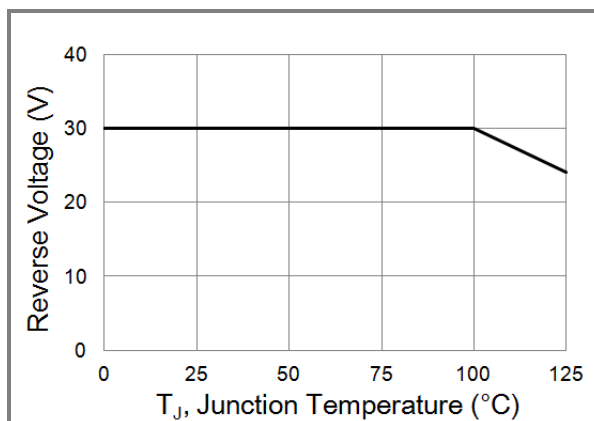


Fig.1 Operating Temperature Derating Curve

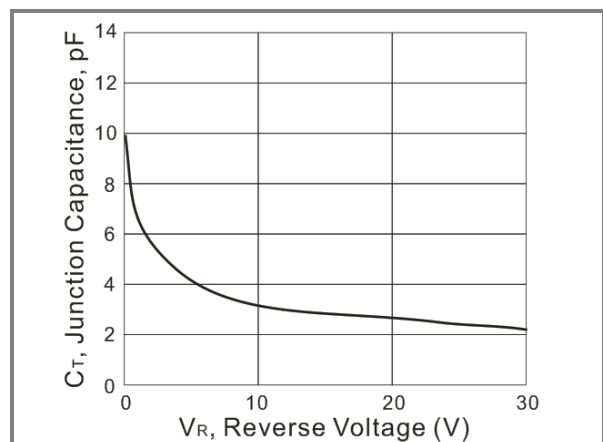


Fig.2 Typical Junction Capacitance

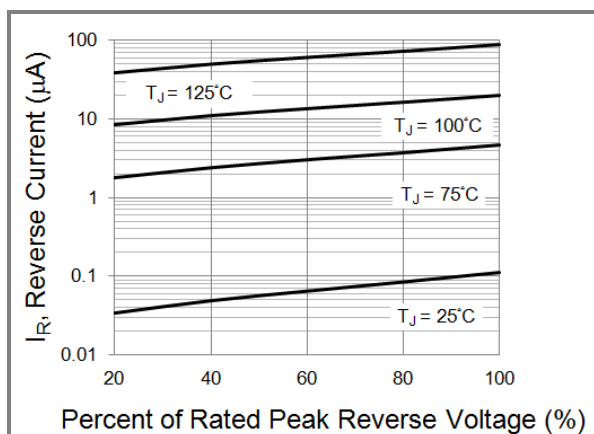


Fig.3 Typical Reverse Characteristics

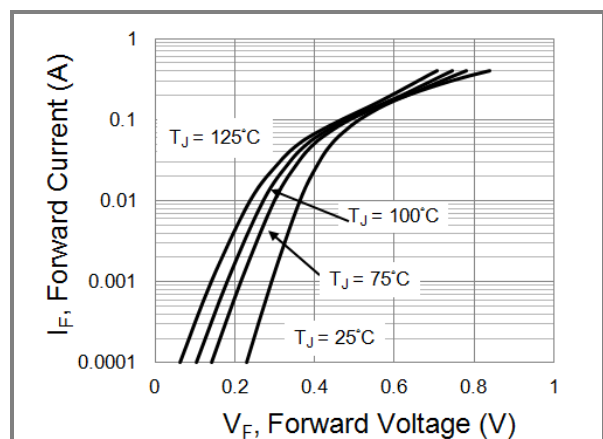


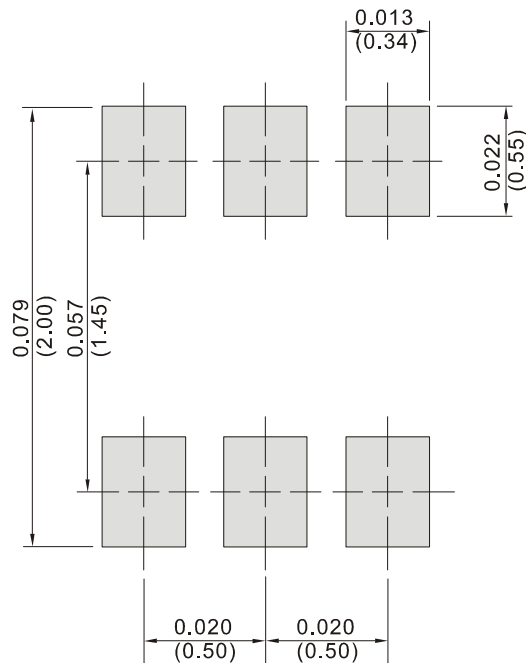
Fig.4 Typical Forward Characteristics

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MOUNTING PAD LAYOUT

SOT-563

Unit : inch(mm)



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

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