

BAT54TB6/ATB6/CTB6/STB6/DTB6

SURFACE MOUNT SCHOTTKY DIODE ARRAYS

VOLTAGE

30 Volts

POWER

200mWatts

SOT-563

Unit: inch (mm)

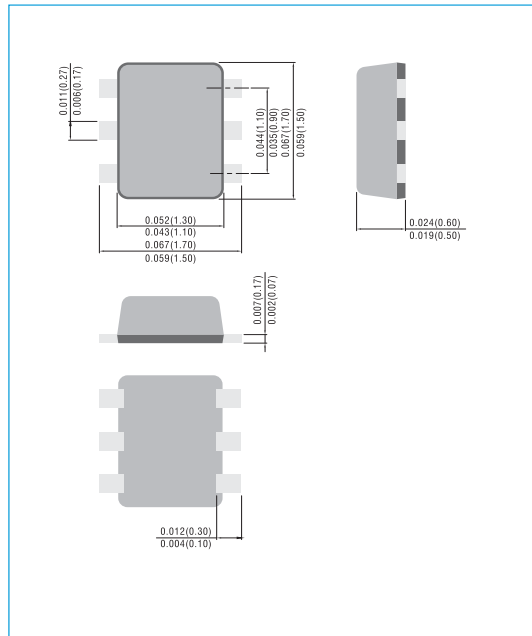
FEATURES

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 :

BAT54TB6	BAT54ATB6	BAT54CTB6	BAT54STB6	BAT54DTB6
TH	TJ	TY	T6	TL



ABSOLUTE RATINGS (each diode)

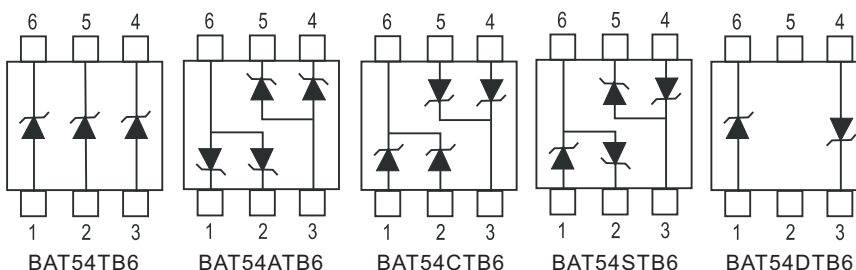
Parameter	Symbol	Value	Units
Maximum Reverse Voltage	V_R	30	V
Peak Reverse Voltage	V_{RRM}	30	V
Continuous Forward Current	I_F	0.2	A

THERMAL CHARACTERISTICS

Parameter	Symbol	Value	Units
Power Dissipation (Note 1)	P_{TOT}	200	mW
Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	625	$^{\circ}C/W$
Junction Temperature	T_J	-55 to 125	$^{\circ}C$
Storage Temperature	T_{STG}	-55 to 150	$^{\circ}C$

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	μA
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

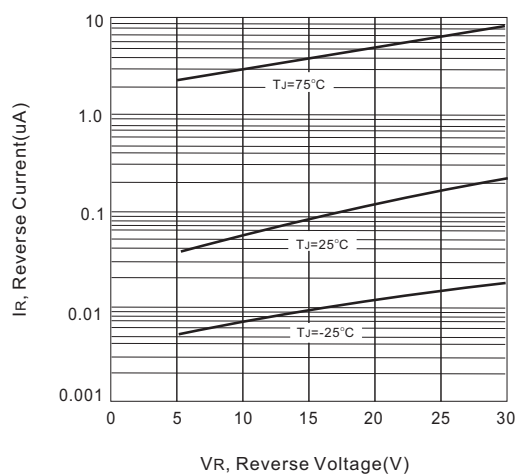


Fig. 1- Typical Reverse Leakage

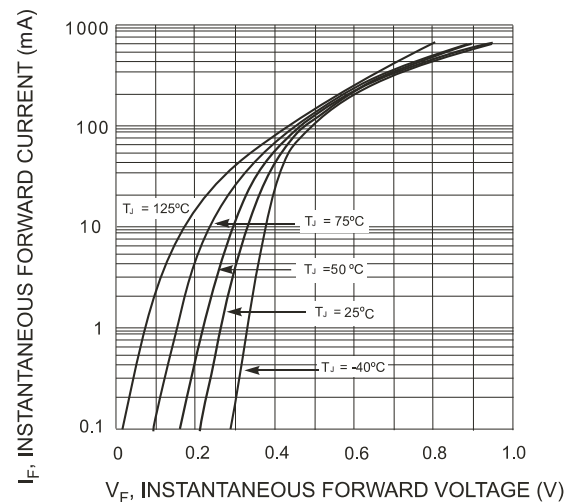


Fig. 2- Forward Characteristics

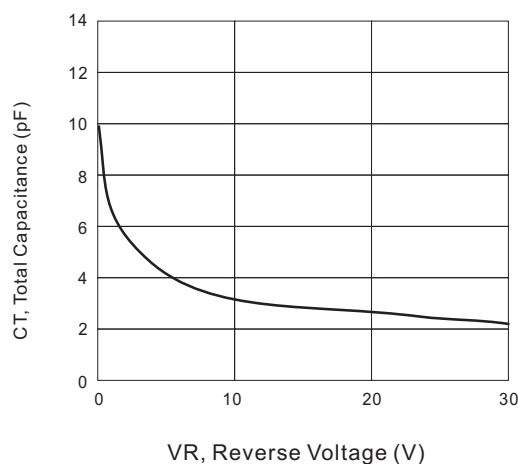


Fig. 3- Typical Total capacitance