WEITRON

BAT54TDW/BAT54CDW
BAT54ADW/BAT54SDW

Surface Mount Schottky Barrier Diodes Arrays

Lead(Pb)-Free

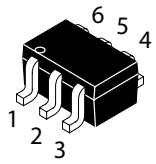
SMALL SIGNAL
SCHOTTKY DIODES
200m AMPERES
30 VOLTS

Features:

* Extremely Fast Switching Speed.
* Low Forward Voltage.
* Very Small Conduction Losses.
* PN Junction Guard Ring for Transient and ESD Protection.

Mechanical Data:

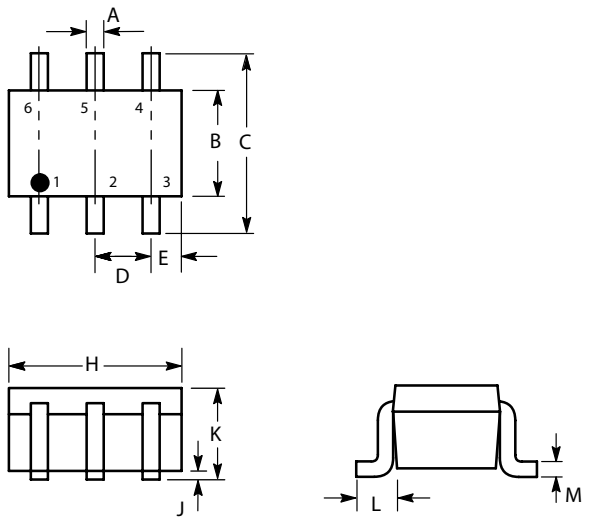
* Case: SOT-363, Molded plastic.
* Terminals: Solderable per MIL-STD-202, Method 208.
* Marking: See Diagrams Below & Page 3.
* Weight: 0.006 grams(approx).



SOT-363(SC-88)

SOT-363 Outline Dimensions

Unit:mm



SOT-363		
Dim	**Min**	**Max**
A	0.10	0.30
B	1.15	1.35
C	2.00	2.20
D	0.65 REF	
E	0.30	0.40
H	1.80	2.20
J	-	0.10
K	0.80	1.10
L	0.25	0.40
M	0.10	0.25

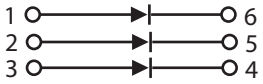
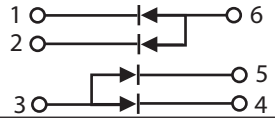
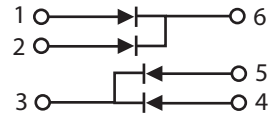
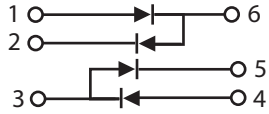
Maximum Ratings (T_A=25°C Unless otherwise noted)

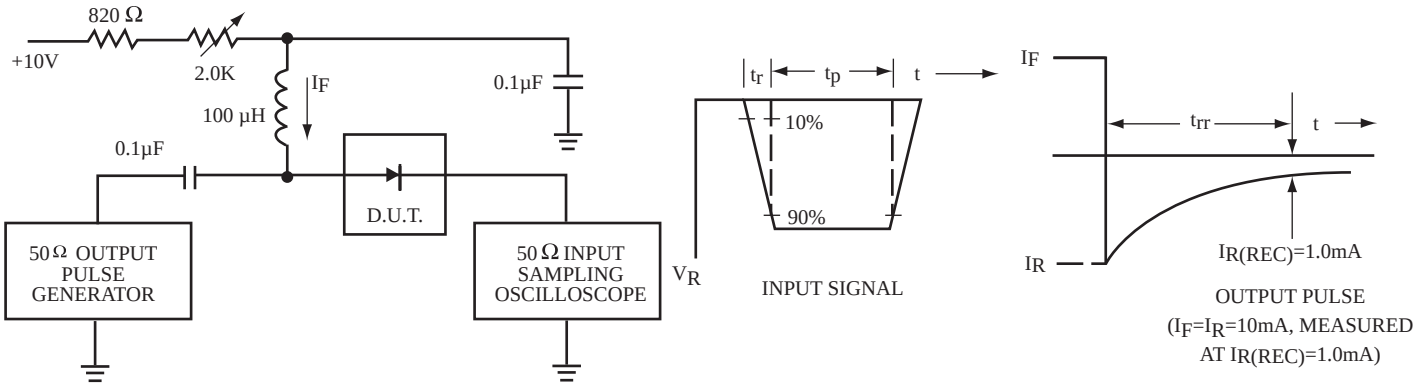
Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RMW} V_R	30	V
Average Rectifier Forward Current	$I_{F(AV)}$	200	mA
Peak Repetitive Forward Current Rated V_R, Square Wave,20KHz	I_{FRM}	300	mA
Non-Repetitive Forward Current(t≤1.0s)	I_{FSM}	600	mA
Power Dissipation	Pd	200	mw
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	625	°C/W
Operating Junction Temperature Range	T_J	-55 to +125	°C
Storage Temperature Range	T_{stg}	-55 to +150	°C

Electrical Characteristics (T_A=25°C Unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Reverse Breakdown Voltage (I_R=10μA)	$V_{(BR)R}$	30			Volts
Forward Voltage I_F=0.1mA I_F=1.0mA I_F=10mA I_F=30mA I_F=100mA	V_F		 0.22 0.29 0.35 0.41 0.52	 0.24 0.32 0.40 0.50 1.00	Volts
Total Capacitance (V_R=1.0V, f=1.0MHz)	C_T		7.6	10	P_F
Reverse Leakage V_R=25V	I_R		0.5	2.0	uAdc
Reverse Recover Time I_F=I_R =10mA, $I_{R(Rec)}$=1.0mA	Trr			5.0	nS

Device Marking

Item	Marking	Eqivalent Circuit diagram
BAT54TDW	KL5	
BAT54ADW	KL6	
BAT54CDW	KL7	
BAT54SDW	KL8	



Notes:1. A 2.0 kΩ variable resistor for a Forward Current (I_F) 0f 10 mA

2. Input pules is adjusted so I_R(peak) is equal to 10 mA

3. $t_p \gg t_{rr}$

FIG.1 Recovery Time Equivalent Test Circuit

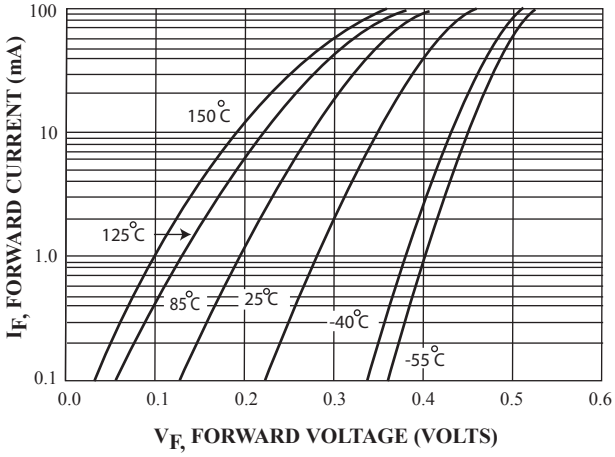


FIG.2 Forward Voltage

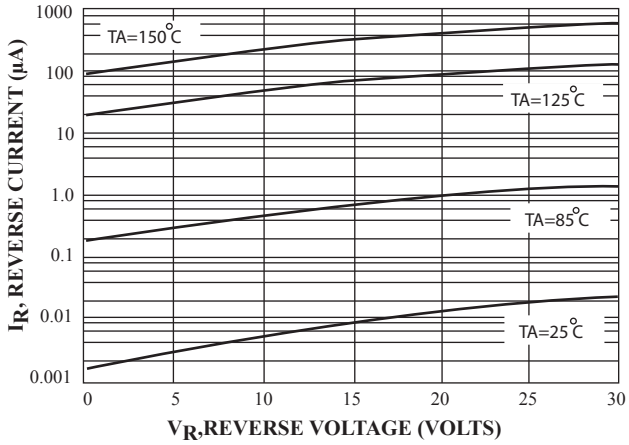


FIG.3 Leakage Current

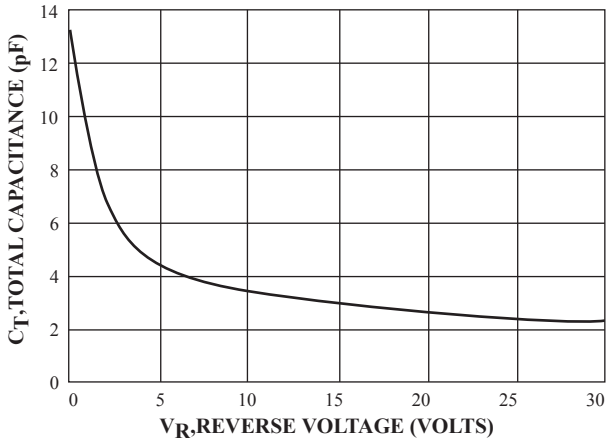


FIG.4 Toral Capacitance