

## Surface Mount Schottky Barrier Diodes Arrays

**(Pb)** Lead(Pb)-Free

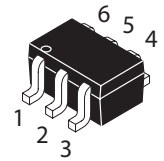
### Features:

- \* 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).

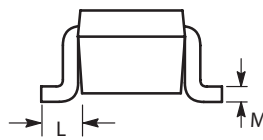
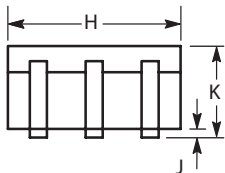
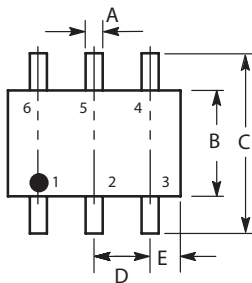
**SMALL SIGNAL  
 SCHOTTKY DIODES  
 200m AMPERES  
 30 VOLTS**



**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** ( $T_A=25^{\circ}\text{C}$  Unless otherwise noted)

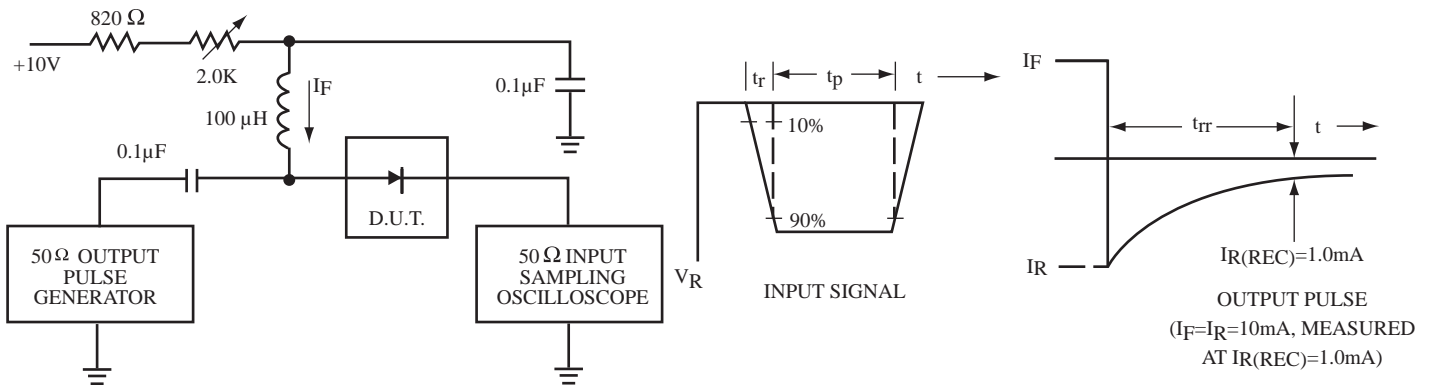
Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	VRRM VRMW VR	30	V
Average Rectifier Forward Current	IF(AV)	200	mA
Peak Repetitive Forward Current Rated VR, Square Wave, 20KHz	IFRM	300	mA
Non-Repetitive Forward Current ( $t \leq 1.0\text{s}$ )	IFSM	600	mA
Power Dissipation	Pd	200	mw
Thermal Resistance, Junction to Ambient Air	R $\theta$ JA	500	$^{\circ}\text{C}/\text{W}$
Operating Junction Temperature Range	TJ	125	$^{\circ}\text{C}$
Storage Temperature Range	Tstg	-55 to +150	$^{\circ}\text{C}$

**Electrical Characteristics** ( $T_A=25^{\circ}\text{C}$  Unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Reverse Breakdown Voltage ( $I_R=10\mu\text{A}$ )	V(BR)R	30			Volts
Forward Voltage IF=1.0mA IF=10mA IF=30mA IF=100mA	VF			0.32 0.40 0.50 1.00	Volts
Total Capacitance (VR=1.0V, f=1.0MHz)	CT			10	Pf
Reverse Leakage VR=25V	IR			2.0	$\mu\text{A}$
Reverse Recover Time IF=IR=10mA, IR(Rec)=0.1xIR, RL=100 $\Omega$	Trr			5.0	nS

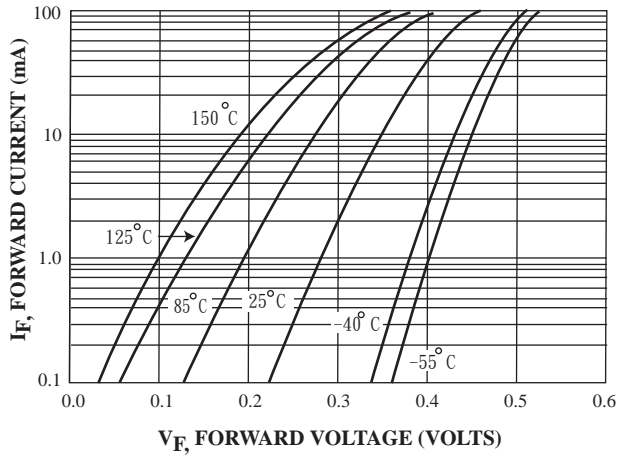
### Device Marking

Item	Marking	Equivalent Circuit diagram
BAT54TDW	KLA	
BAT54ADW	KL6	
BAT54CDW	KL7	
BAT54BRW	KLB	
BAT54SDW	KL8	

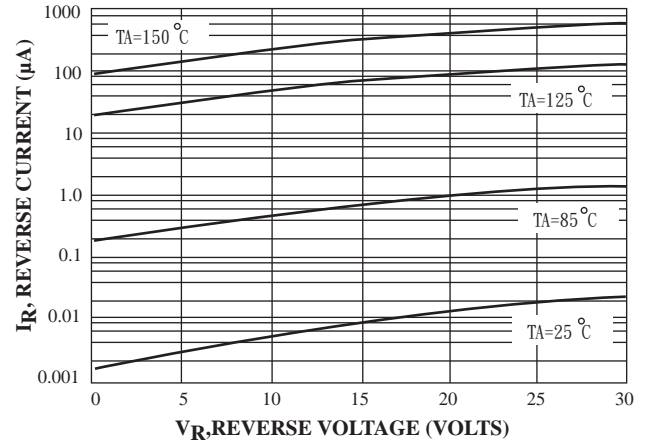


- Notes: 1. A 2.0 kΩ variable resistor for a Forward Current ( $I_F$ ) of 10 mA  
 2. Input pulses is adjusted so  $I_R(\text{peak})$  is equal to 10 mA  
 3.  $t_p \gg t_{rr}$

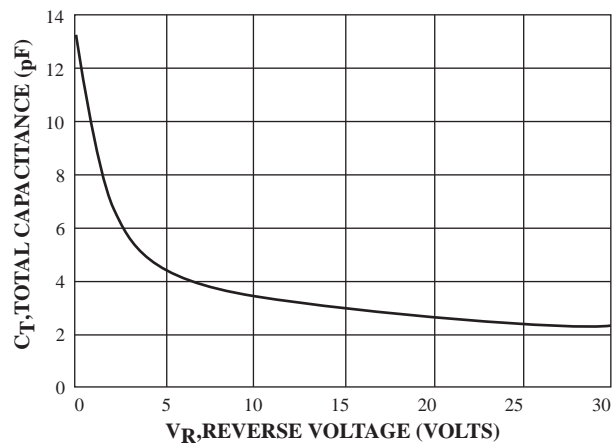
**FIG.1 Recovery Time Equivalent Test Circuit**



**FIG.2 Forward Voltage**



**FIG.3 Leakage Current**



**FIG.4 Total Capacitance**