

## Surface Mount Schottky Barrier Diodes Arrays

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

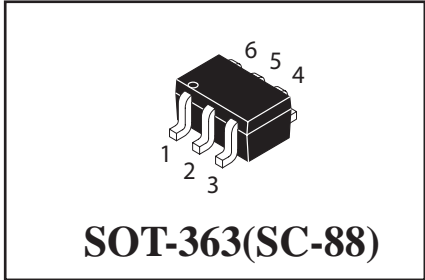
### Features:

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

### Mechanical Data:

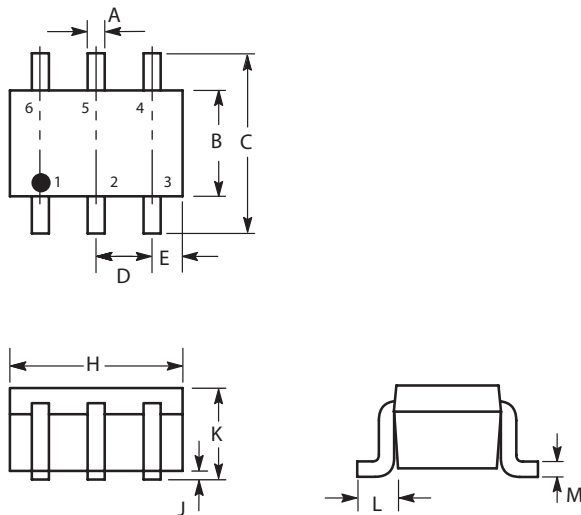
- \* Case: SOT-363, Molded plastic.
- \* Terminals: Solderable per MIL-STD-202, Method 208.
- \* Marking: See Diagrams Below & Page 3.
- \* Weight: 0.006 grams(approx).

<p align="center"> <b>SMALL SIGNAL</b>  <b>SCHOTTKY DIODES</b>  <b>200m AMPERES</b>  <b>30 VOLTS</b> </p>
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## SOT-363 Outline Dimensions

Unit:mm



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

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

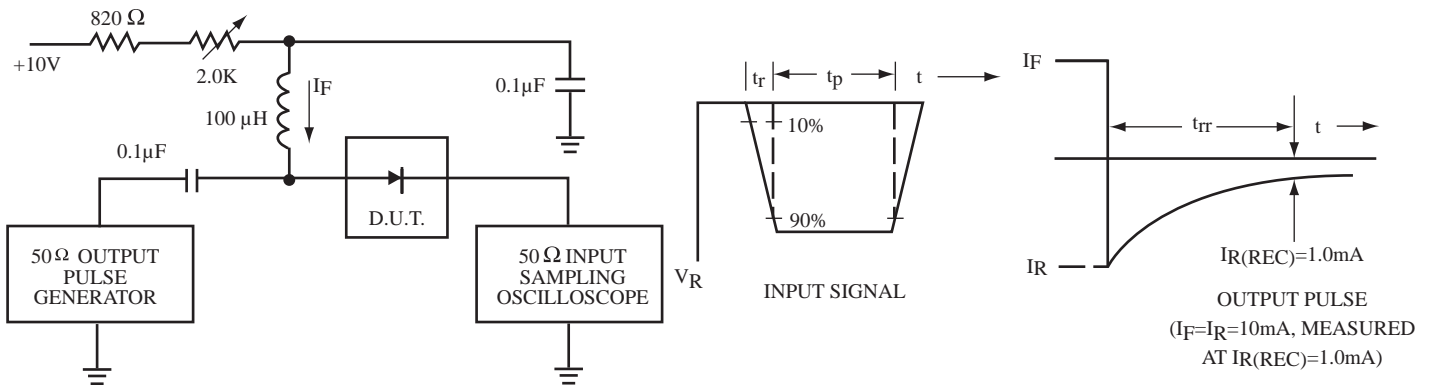
Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	VRRM VRMW VR	30	V
Average Rectifier Forward Current	IF(AV)	200	mA
Peak Repetitive Forward Current Rated VR, Square Wave, 20KHz	IFRM	300	mA
Non-Repetitive Forward Current ( $t \leq 1.0\text{s}$ )	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 ( $V_R=1.0\text{V}$ , $f=1.0\text{MHz}$ )	CT			10	Pf
Reverse Leakage $V_R=25\text{V}$	IR			2.0	$\mu\text{A}$
Reverse Recover Time $I_F=I_R=10\text{mA}$ , $I_R(\text{Rec})=0.1 \times I_R$ , $R_L=100\ \Omega$	Trr			5.0	nS

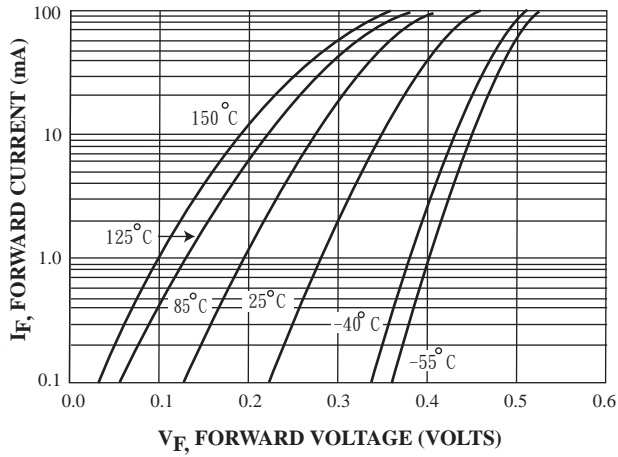
### Device Marking

Item	Marking	Equivalent Circuit diagram
BAT54TDW	KL A	
BAT54ADW	KL 6	
BAT54CDW	KL 7	
BAT54BRW	KL B	
BAT54SDW	KL 8	

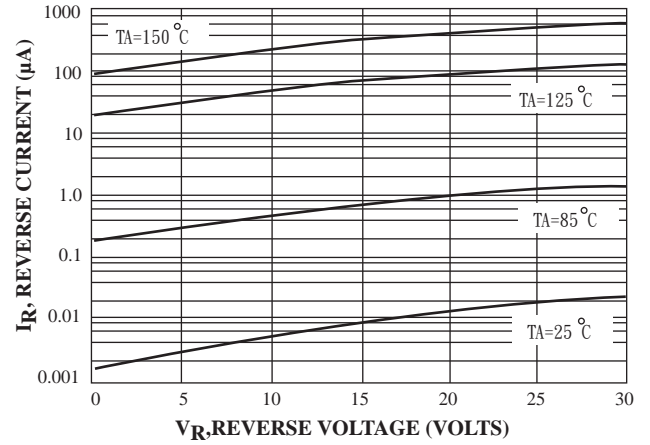


- Notes: 1. A 2.0 kΩ variable resistor for a Forward Current ( $I_F$ ) of 10 mA  
 2. Input pulses is adjusted so  $I_R(\text{peak})$  is equal to 10 mA  
 3.  $t_p \gg t_{rr}$

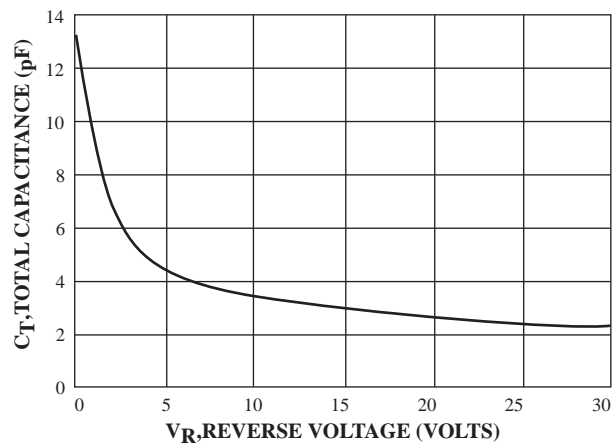
**FIG.1 Recovery Time Equivalent Test Circuit**



**FIG.2 Forward Voltage**



**FIG.3 Leakage Current**



**FIG.4 Total Capacitance**