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SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT

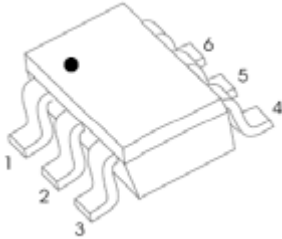


PLED

Product data sheet

www.msksemi.com

SOT-363

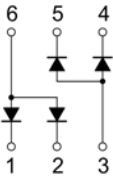


**BAT54ADW /BAT54BRW /
BAT54CDW /BAT54SDW /BAT54TW
BAT54DW/BAT54JW**

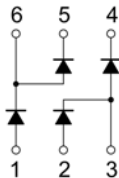
SCHOTTKY BARRIER DIODE ARRAYS

FEATURES

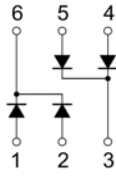
- Low Forward Voltage Drop
- Fast Switching
- Small Surface Mount Package
- PN Junction Guard Ring for Transient and ESD Protection
- Available in Lead Free Version



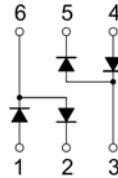
BAT54ADW



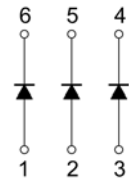
BAT54BRW



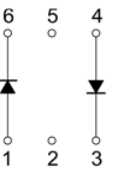
BAT54CDW



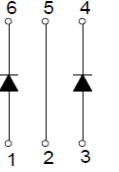
BAT54SDW



BAT54TW



BAT54DW



BAT54JW

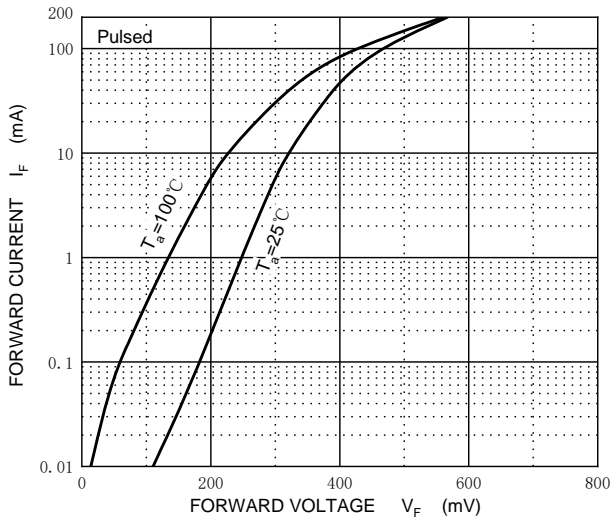
MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{RRM}	Repetitive Peak Reverse Voltage	30	V
V_{RWM}	Peak Working Reverse Voltage		
V_R	DC Blocking Voltage		
I_O	Forward Continuous Current	200	mA
I_{FRM}	Repetitive Peak Forward Current	300	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	600	
P_D	Power Dissipation	200	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	500	$^\circ\text{C}/\text{W}$
T_j	Operating Junction Temperature Range	-40 ~ +125	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55 ~ +150	$^\circ\text{C}$

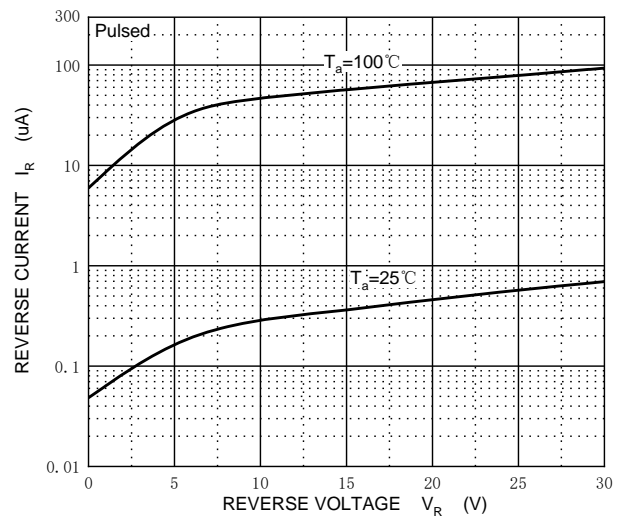
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=100\mu\text{A}$	30			V
Reverse current	I_R	$V_R=25\text{V}$			2	μA
Forward voltage	V_F	$I_F=1\text{mA}$			320	mV
		$I_F=10\text{mA}$			400	
		$I_F=30\text{mA}$			500	
		$I_F=100\text{mA}$			1000	
Total capacitance	C_{tot}	$V_R=1\text{V}, f=1\text{MHz}$			10	pF
Reverse recovery time	t_{rr}	$I_F=I_R=10\text{mA}, I_{rr}=0.1\times I_R, R_L=100\Omega$			5	ns

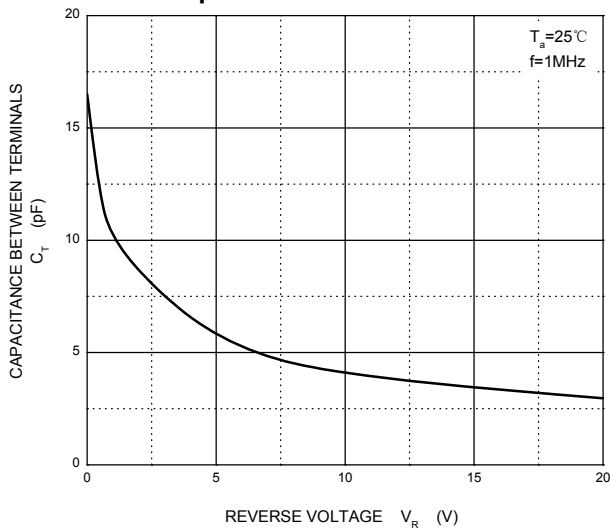
Forward Characteristics



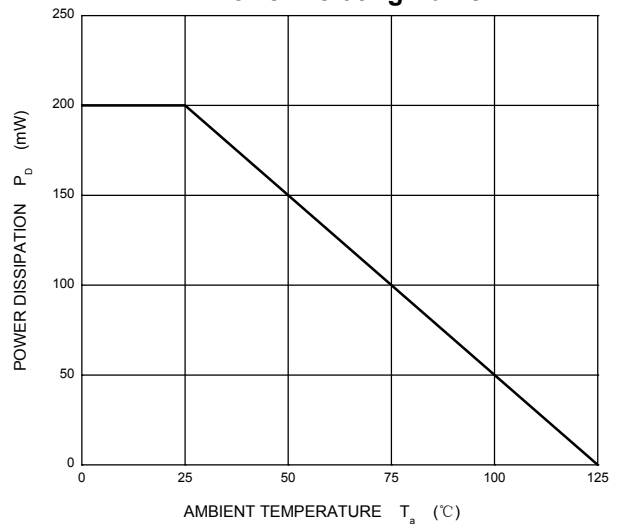
Reverse Characteristics



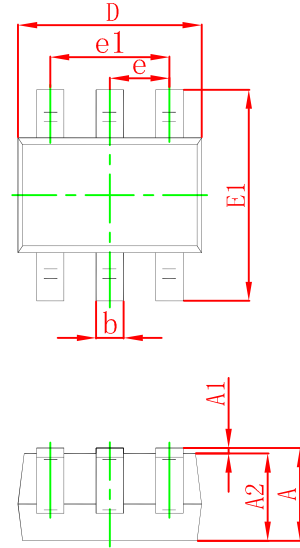
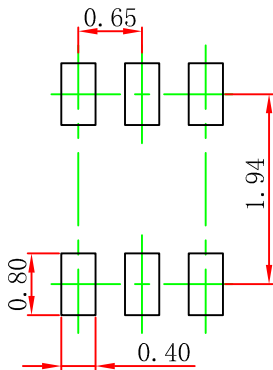
Capacitance Characteristics



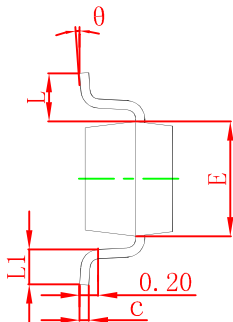
Power Derating Curve



SOT-363



- Note:
1. Controlling dimension: in millimeters.
 2. General tolerance: $\pm 0.05\text{mm}$.
 3. The pad layout is for reference purposes only.



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.150	0.350	0.006	0.014
c	0.100	0.150	0.004	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.400	0.085	0.094
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

REEL SPECIFICATION

P/N	PKG	QTY
BAT54XXW	SOT-363	3000

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