

# MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT

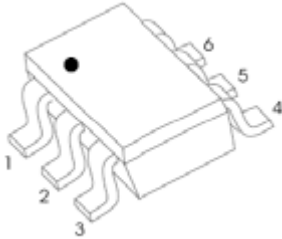


PLED

Product data sheet

[www.msksemi.com](http://www.msksemi.com)

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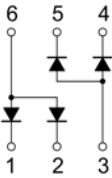


**BAT54ADW /BAT54BRW /  
BAT54CDW /BAT54SDW /BAT54TW  
BAT54DW/BAT54JW**

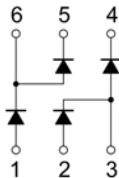
SCHOTTKY BARRIER DIODE ARRAYS

**FEATURES**

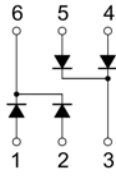
- Low Forward Voltage Drop
- Fast Switching
- Small Surface Mount Package
- PN Junction Guard Ring for Transient and ESD Protection
- Available in Lead Free Version



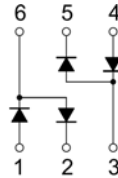
**BAT54ADW**



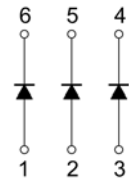
**BAT54BRW**



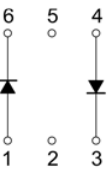
**BAT54CDW**



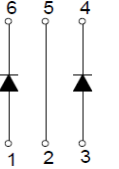
**BAT54SDW**



**BAT54TW**



**BAT54DW**



**BAT54JW**

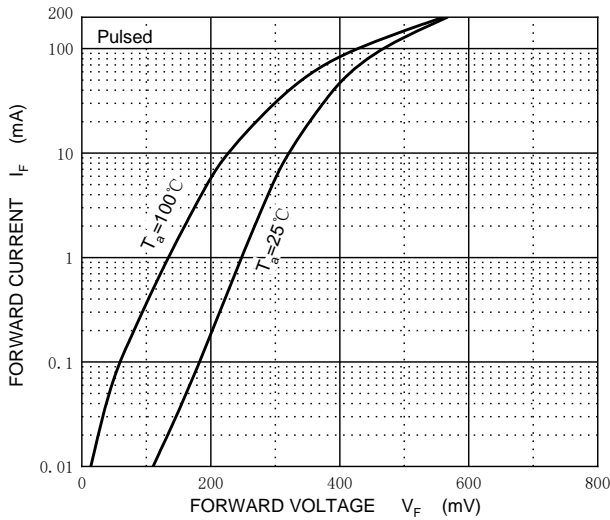
**MAXIMUM RATINGS ( T<sub>a</sub>=25°C unless otherwise noted )**

Symbol	Parameter	Value	Unit
V <sub>RRM</sub>	Repetitive Peak Reverse Voltage	30	V
V <sub>RWM</sub>	Peak Working Reverse Voltage		
V <sub>R</sub>	DC Blocking Voltage		
I <sub>O</sub>	Forward Continuous Current	200	mA
I <sub>FRM</sub>	Repetitive Peak Forward Current	300	mA
I <sub>FSM</sub>	Non-repetitive Peak Forward Surge Current @t=8.3ms	600	
P <sub>D</sub>	Power Dissipation	200	mW
R <sub>θJA</sub>	Thermal Resistance From Junction To Ambient	500	°C/W
T <sub>J</sub>	Operating Junction Temperature Range	-40 ~ +125	°C
T <sub>stg</sub>	Storage Temperature Range	-55 ~ +150	°C

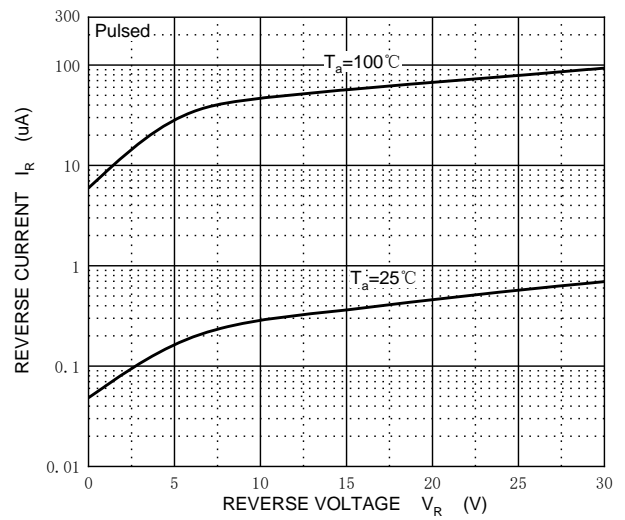
**ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$  unless otherwise specified)**

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	$\mu\text{A}$
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

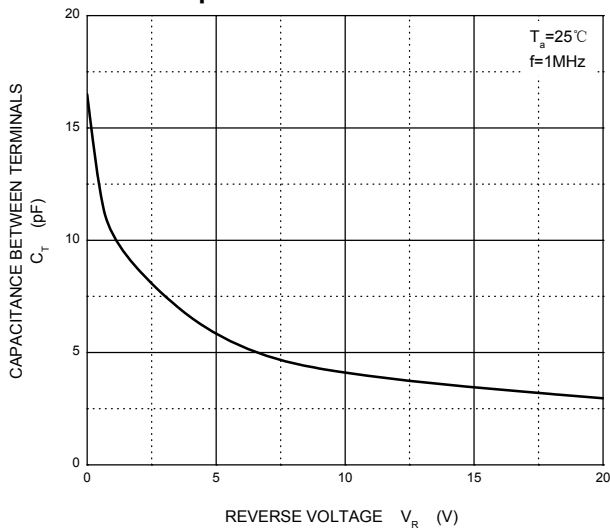
**Forward Characteristics**



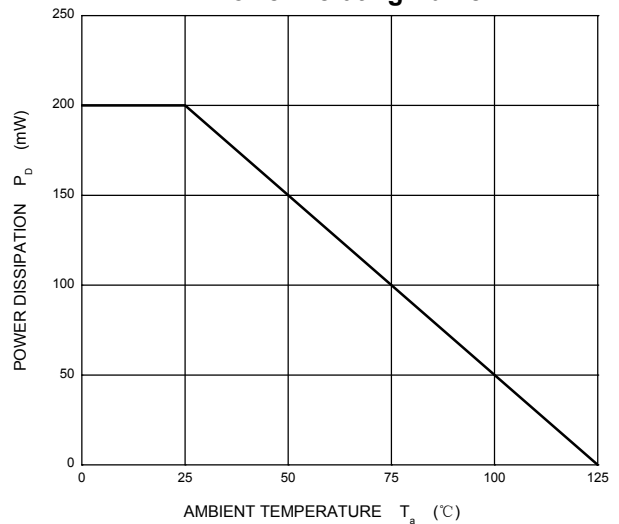
**Reverse Characteristics**



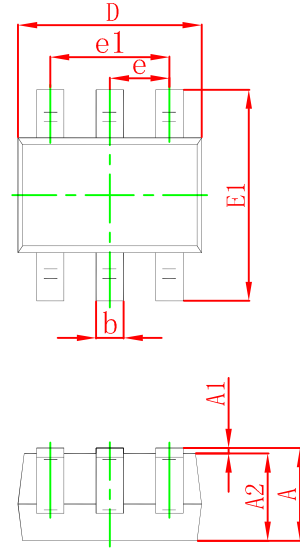
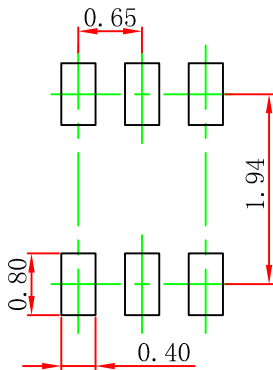
**Capacitance Characteristics**



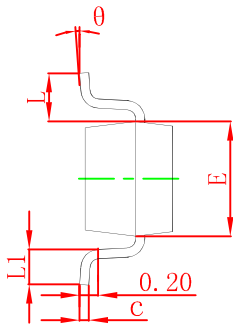
**Power Derating Curve**



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- 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
$\theta$	0°	8°	0°	8°

**REEL SPECIFICATION**

P/N	PKG	QTY
BAT54XXW	SOT-363	3000

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