

### Features

- Low forward voltage drop.
- Fast switching.
- Ultra-small surface mount package.
- PN junction guard ring for transient and ESD protection.

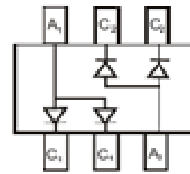
HF

### Typical Applications

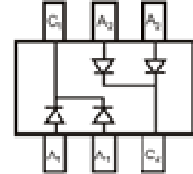
- High speed switching application.

### Mechanical Data

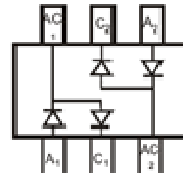
- Case: SOT-363
- Terminals: solderable per MIL-STD-202, Method 208.



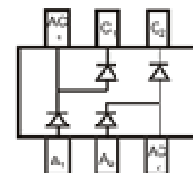
BAT54ADW



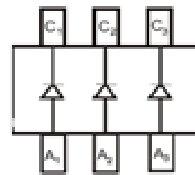
BAT54CDW



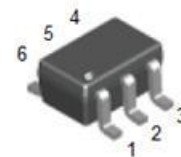
BAT54SDW



BAT54BRW



BAT54TW



SOT-363

### Ordering Information

Part Number	Package	Shipping	Marking Code
BAT54TW	SOT-363	3000pcs / Tape & Reel	KLA
BAT54ADW	SOT-363	3000pcs / Tape & Reel	KL6
BAT54CDW	SOT-363	3000pcs / Tape & Reel	KL7
BAT54SDW	SOT-363	3000pcs / Tape & Reel	KL8
BAT54BRW	SOT-363	3000pcs / Tape & Reel	KLB

### Maximum Ratings (@T<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	Limits	Unit
Peak Repetitive Peak reverse voltage	V <sub>RRM</sub>	30	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
DC Reverse Voltage	V <sub>R</sub>		
Forward Continuous Current	I <sub>F</sub>	200	mA
Repetitive Peak Forward Current	I <sub>FRM</sub>	300	mA
Forward surge current@tp<1s	I <sub>FSM</sub>	600	mA
Power Dissipation *	P <sub>d</sub>	200	mW

\* part mounted on FR-4 board with recommended pad layout

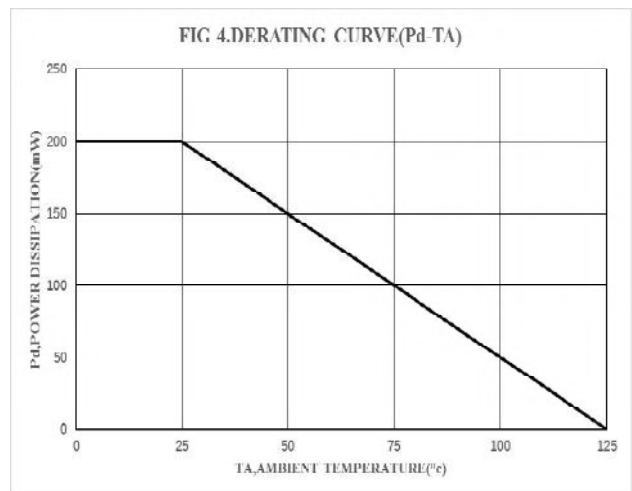
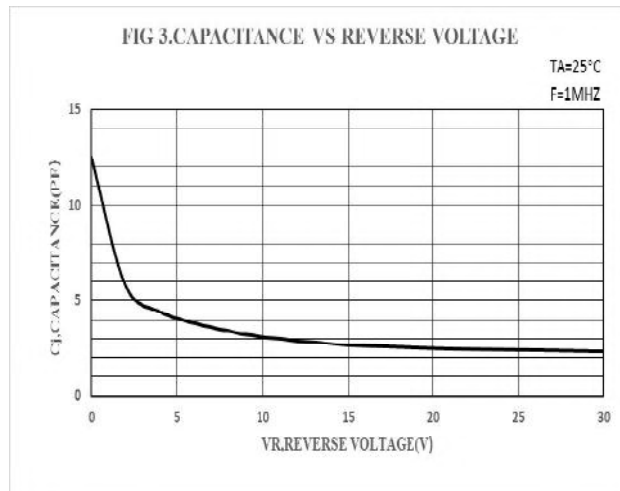
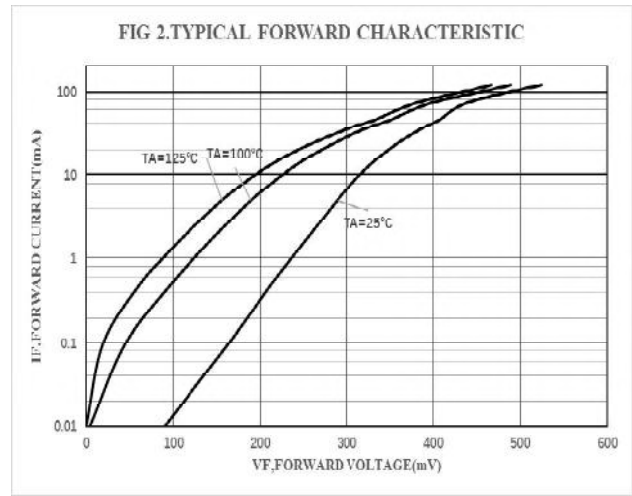
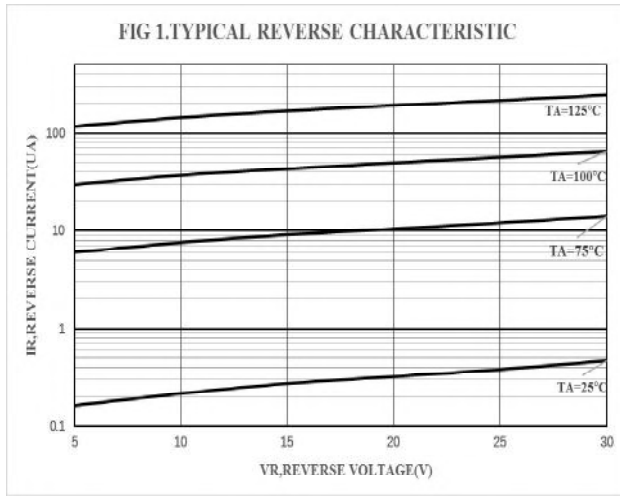
### Thermal Characteristics

Parameter	Symbol	Limits	Unit
Thermal resistance junction to ambient air	$R_{\theta JA}$	500	$^{\circ}C/W$
Junction temperature	$T_j$	125	$^{\circ}C$
Storage temperature range	$T_{STG}$	-55 to +150	$^{\circ}C$

### Electrical Characteristics (@ $T_A=25^{\circ}C$ unless otherwise specified)

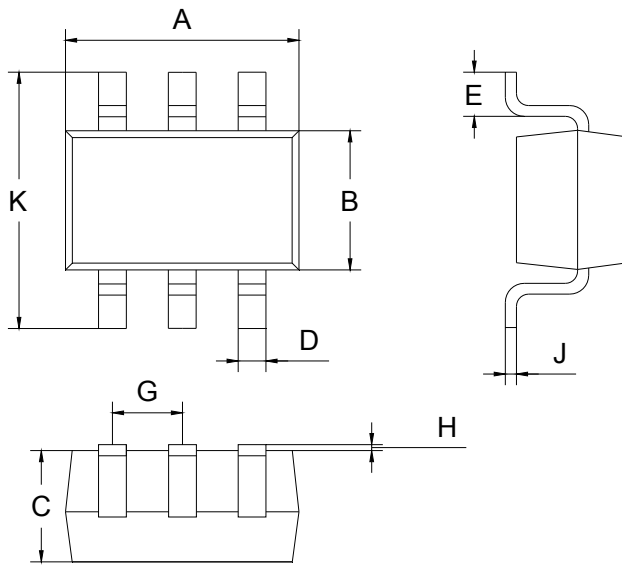
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=100\mu A$	30			V
Forward voltage *1	$V_F$	$I_F=0.1mA$			0.24	V
		$I_F=1mA$			0.32	V
		$I_F=10mA$			0.40	V
		$I_F=30mA$			0.50	V
		$I_F=100mA$			1.00	V
Reverse current *2	$I_R$	$V_R=25V$			2	$\mu A$
Capacitance Between Terminals	$C_T$	$V_R=1V, f=1MHz$			10	pF
Reverse Recovery Time	$t_{rr}$	$I_F=I_R=10mA$ $I_{rr}=0.1I_R, R_L=100\Omega$			5	ns
*1: pulse test, $t_p \leq 300\mu s$ *2: pulse test, $t_p \leq 5ms$						

**Ratings and Characteristic Curves** ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)



**Package Outline Dimensions** (unit: mm)

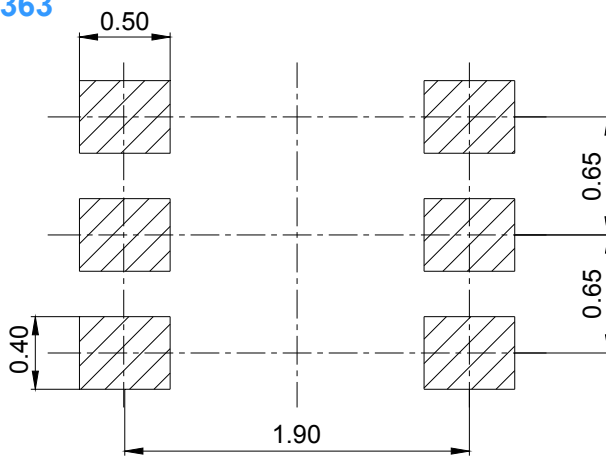
**SOT-363**



SOT-363		
Dim	Min	Max
A	2.00	2.20
B	1.15	1.35
C	0.85	1.05
D	0.15	0.35
E	0.25	0.40
G	0.60	0.70
H	0.02	0.10
J	0.05	0.15
K	2.20	2.40

**Mounting Pad Layout** (unit: mm)

**SOT-363**



**IMPORTANT NOTICE**

Galaxy Microelectronics (GME) reserves the right to make changes without further notice to any product herein to make corrections, modifications, improvements, or other changes. GME does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others.

### Change record

Rev.	Date	Modification
2.0	2018-08-01	The First Edition 初版
2.1	2018-08-01	Change Package Outline Dimensions 外形尺寸更新:J 公差放宽 0.05/0.15