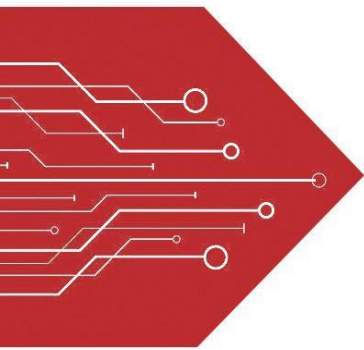


# MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV

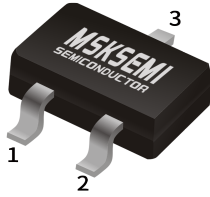


GDT



PLED

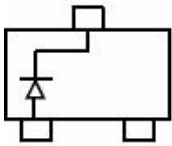
Product data sheet



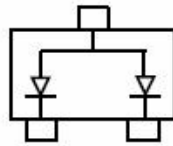
**SOT-23**

**FEATURES**

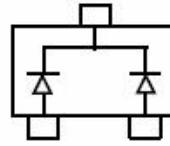
Extremely Fast Switching Speed



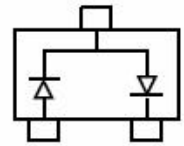
BAT54-7-MS  
MARKING: KL1



BAT54A-7-MS  
MARKING: KL2



BAT54C-7-MS  
MARKING: KL3



BAT54S-7-MS  
MARKING: KL4

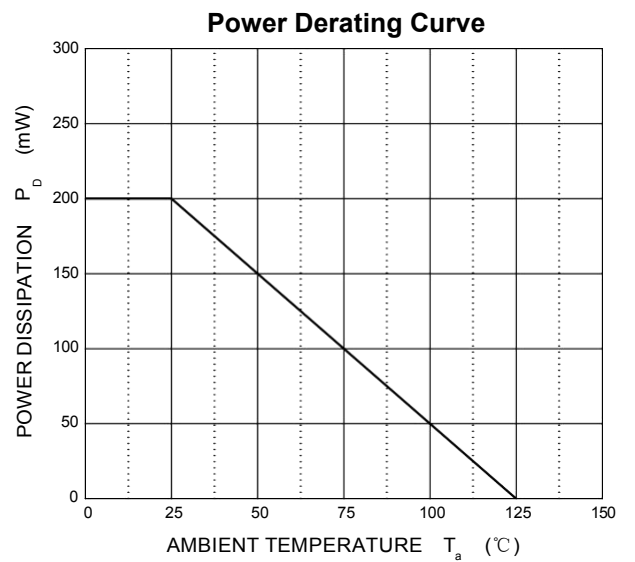
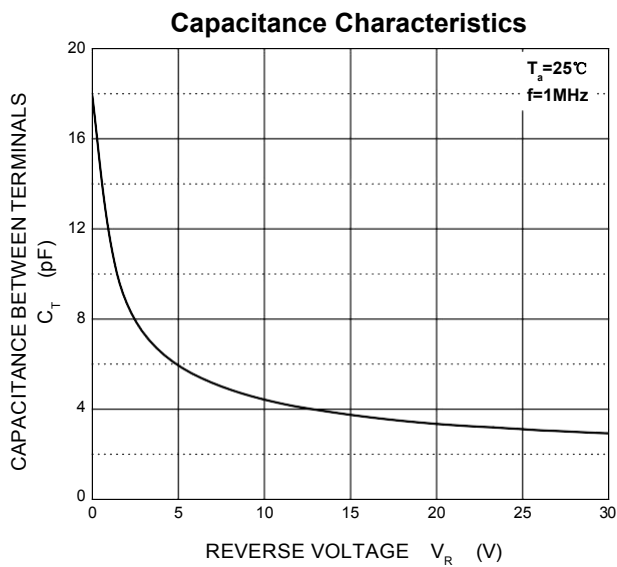
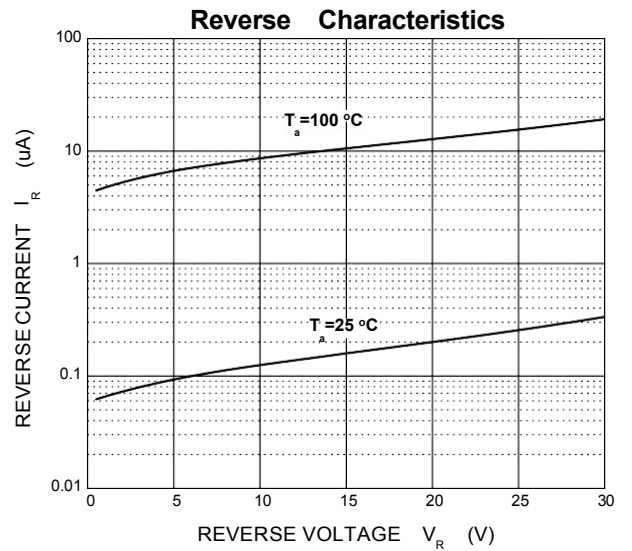
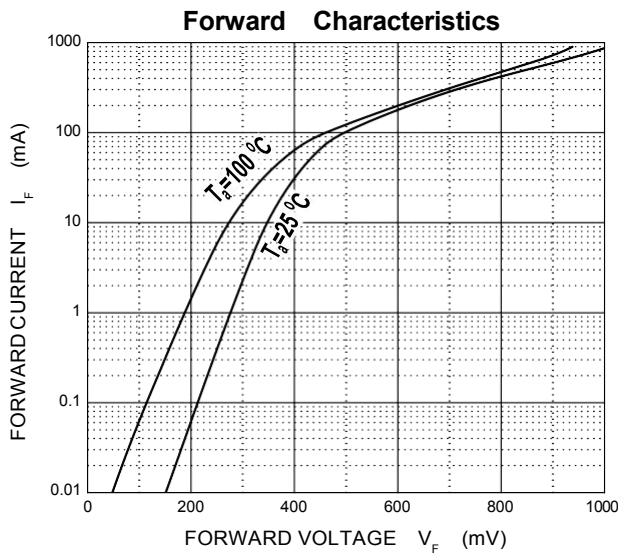
**Maximum Ratings @T<sub>A</sub>=25°C**

Parameter	Symbol	Limits	Unit
Peak Repetitive Peak reverse voltage	V <sub>RRM</sub>	30	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
	V <sub>R</sub>		
Forward Continuous Current	I <sub>FM</sub>	200	mA
Power Dissipation	P <sub>D</sub>	200	mW
Storage temperature	T <sub>STG</sub>	-55-150	°C

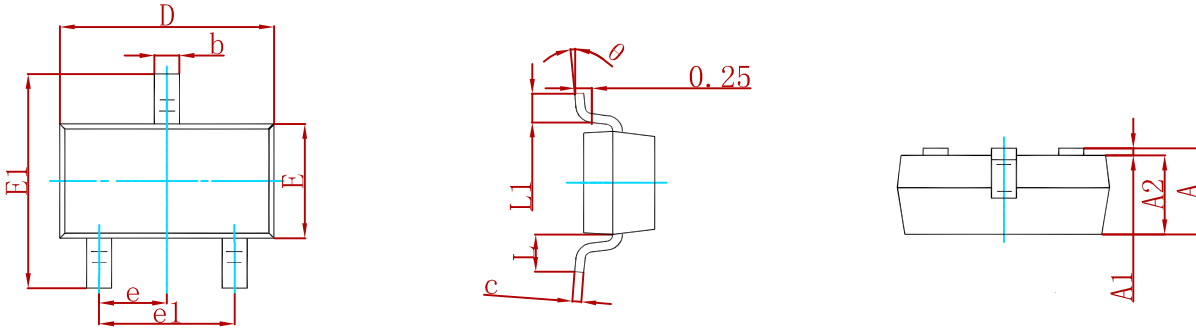
**Electrical Characteristics @T<sub>A</sub>=25°C**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse Breakdown Voltage	V <sub>(BR)R</sub>	30			V	I <sub>R</sub> =100μA
Forward voltage	V <sub>F1</sub>			0.24	V	I <sub>F</sub> =0.1mA
	V <sub>F2</sub>			0.32	V	I <sub>F</sub> =1mA
	V <sub>F3</sub>			0.40	V	I <sub>F</sub> =10mA
	V <sub>F4</sub>			0.50	V	I <sub>F</sub> =30mA
	V <sub>F5</sub>			1	V	I <sub>F</sub> =100mA
Reverse current	I <sub>R</sub>			2	μA	V <sub>R</sub> =25V
Diode Capacitance	C <sub>D</sub>			10	pF	V <sub>R</sub> =1V, f=1MHz
Reverse Recovery Time	t <sub>rr</sub>			5	nS	I <sub>F</sub> =I <sub>R</sub> =10mA I <sub>rr</sub> =0.1X I <sub>R</sub> , R <sub>L</sub> =100Ω

## Typical Characteristics

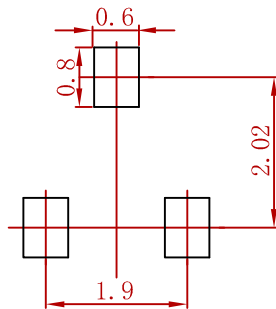


**PACKAGE MECHANICAL DATA**



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

**Suggested Pad Layout**



- Note:
1. Controlling dimension: in millimeters.
  2. General tolerance: ± 0.05mm.
  3. The pad layout is for reference purposes only.

**REEL SPECIFICATION**

P/N	PKG	QTY
BAT54/A/C/S-7-MS	SOT-23	3000

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