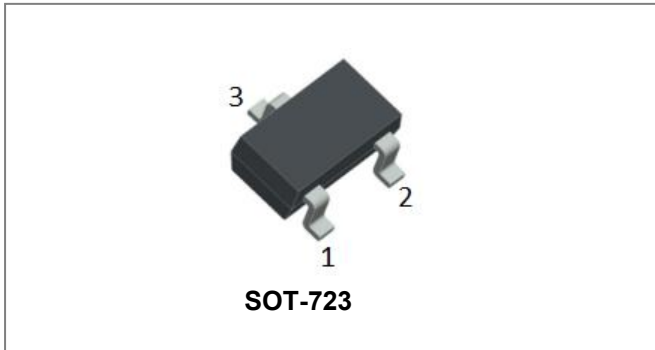


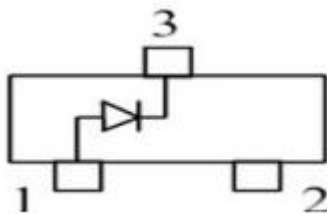
## BAT54M-A SURFACE MOUNT SCHOTTKY BARRIER DIODE



### Features

- High Conductance
- Low Current Leakage
- Small Outline Surface Mount Package
- “-A” is an AEC-Q101 qualified device
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

### Schematic & Pin Configuration



### Mechanical Characteristics

- Case: SOT-723, Molded plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208

### Maximum Ratings @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	30	V
Continuous Forward Current	$I_O$	200	mA
Repetitive Peak Forward Current @ $t \leq 1\text{s}$ , $\delta \leq 0.5$	$I_{FRM}$	300	mA
Non-Repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	$I_{FSM}$	600	mA
Power Dissipation	$P_D$	150	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	667	$^{\circ}\text{C}/\text{W}$
Junction Temperature Range	$T_J$	125	$^{\circ}\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150	$^{\circ}\text{C}$

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

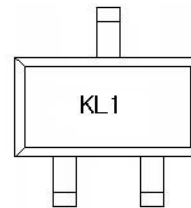
Characteristics	Symbol	Condition	Min.	Typ.	Max.	Units
Reverse Breakdown Voltage	V <sub>BR</sub>	@I <sub>R</sub> =100uA	30			V
Forward Voltage Drop*	V <sub>F1</sub>	@ 0.1mA, Pulse, T <sub>J</sub> = 25 °C @ 1mA, Pulse, T <sub>J</sub> = 25 °C @ 10mA, Pulse, T <sub>J</sub> = 25 °C @ 30mA, Pulse, T <sub>J</sub> = 25 °C @ 100mA, Pulse, T <sub>J</sub> = 25 °C			0.24 0.32 0.40 0.50 1.0	V
Reverse Current*	I <sub>R1</sub>	@V <sub>R</sub> = 25V, Pulse, T <sub>J</sub> = 25 °C			2	μA
Junction Capacitance(per leg)	C <sub>T</sub>	@V <sub>R</sub> = 1 V, T <sub>c</sub> =25°C f <sub>SIG</sub> = 1MHz			10	pF
Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> =10mA I <sub>R</sub> = 10mA, I <sub>rr</sub> = 1 mA			5	ns

\* Pulse width < 300 μs, duty cycle < 2%

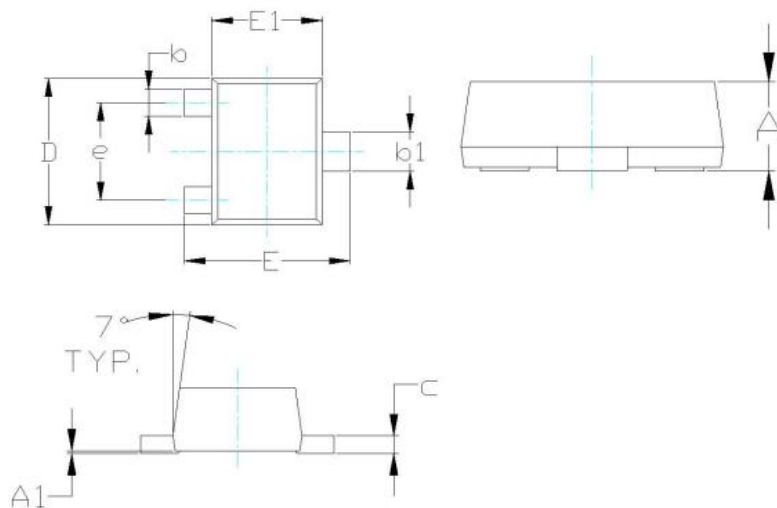
**Ordering Information**

Device	Package	Shipping
BAT54M-A	SOT-723	8000pcs /7" Reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

**Marking Diagram**


KL1 = Marking Code

**Mechanical Dimensions SOT-723**


SYMBOL	Millimeters	
	MIN.	MAX.
A	0.43	0.50
A1	0	0.05
b	0.17	0.27
b1	0.27	0.37
c	0.08	0.15
D	1.15	1.25
E	1.15	1.25
E1	0.75	0.85
e	0.80 TYP.	
θ	0°	7°

**Ratings and Characteristics Curves**

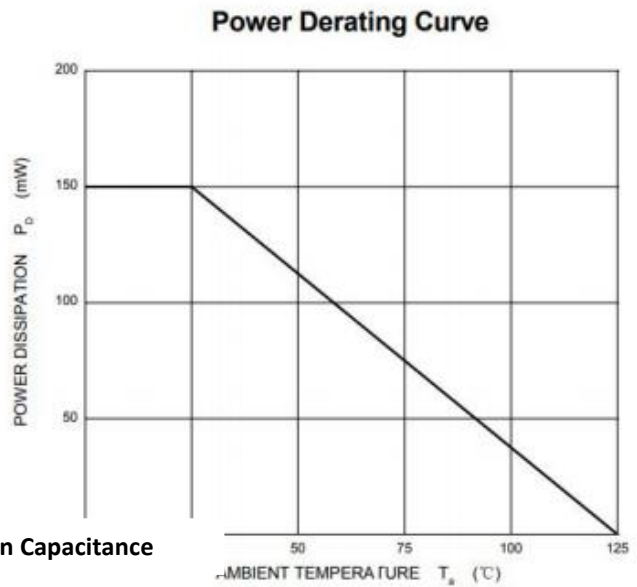
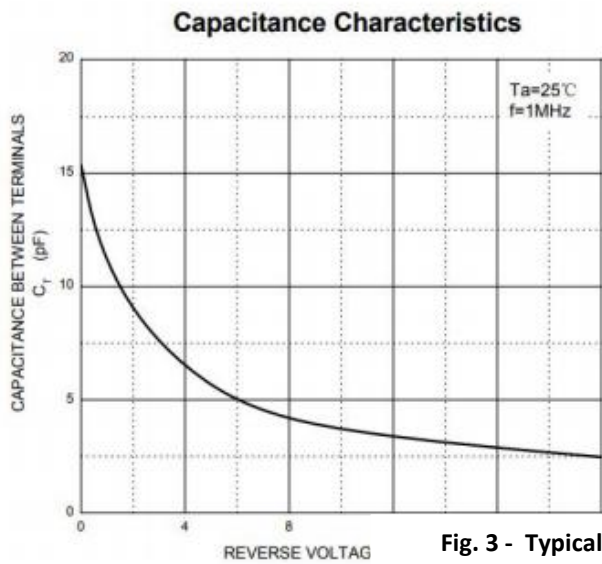
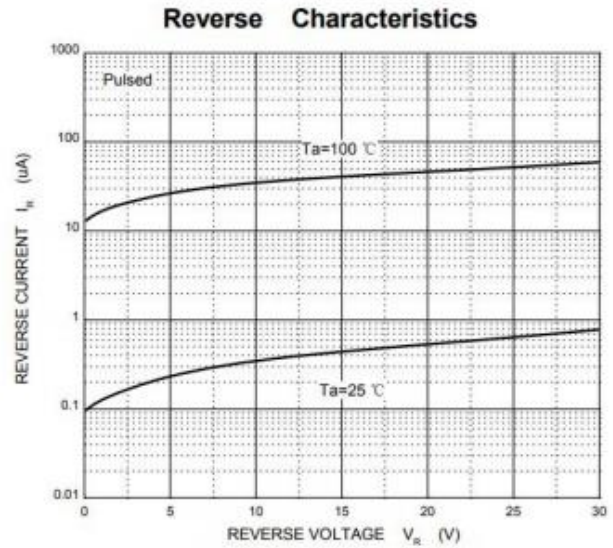
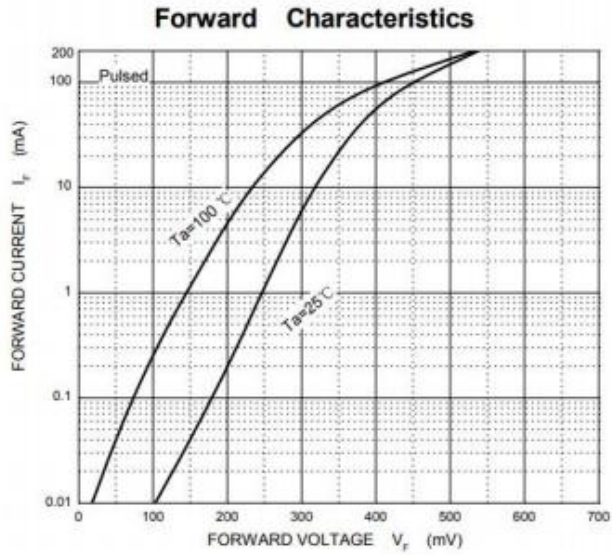


Fig. 3 - Typical Junction Capacitance

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