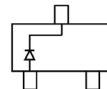
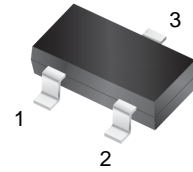
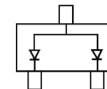
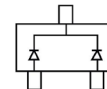
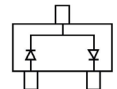


Schottky Barrier Diode in SOT-23

Features

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- Low Forward Voltage


BAT54
Marking KL1

BAT54A
Marking KL2

BAT54C
Marking KL3

BAT54S
Marking KL4

Mechanical Data

- **Case:** SOT-23 (plastic package).
Lead free; RoHS compliant
- **Molding Compound Flammability Rating:**
UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:
260 °C/10 sec. at terminals

Applications

- High Speed Switching and Reverse Polarity Protection
- High Speed Rectifying Applications
- Consumer, Automotive and Telecommunication Industry

Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

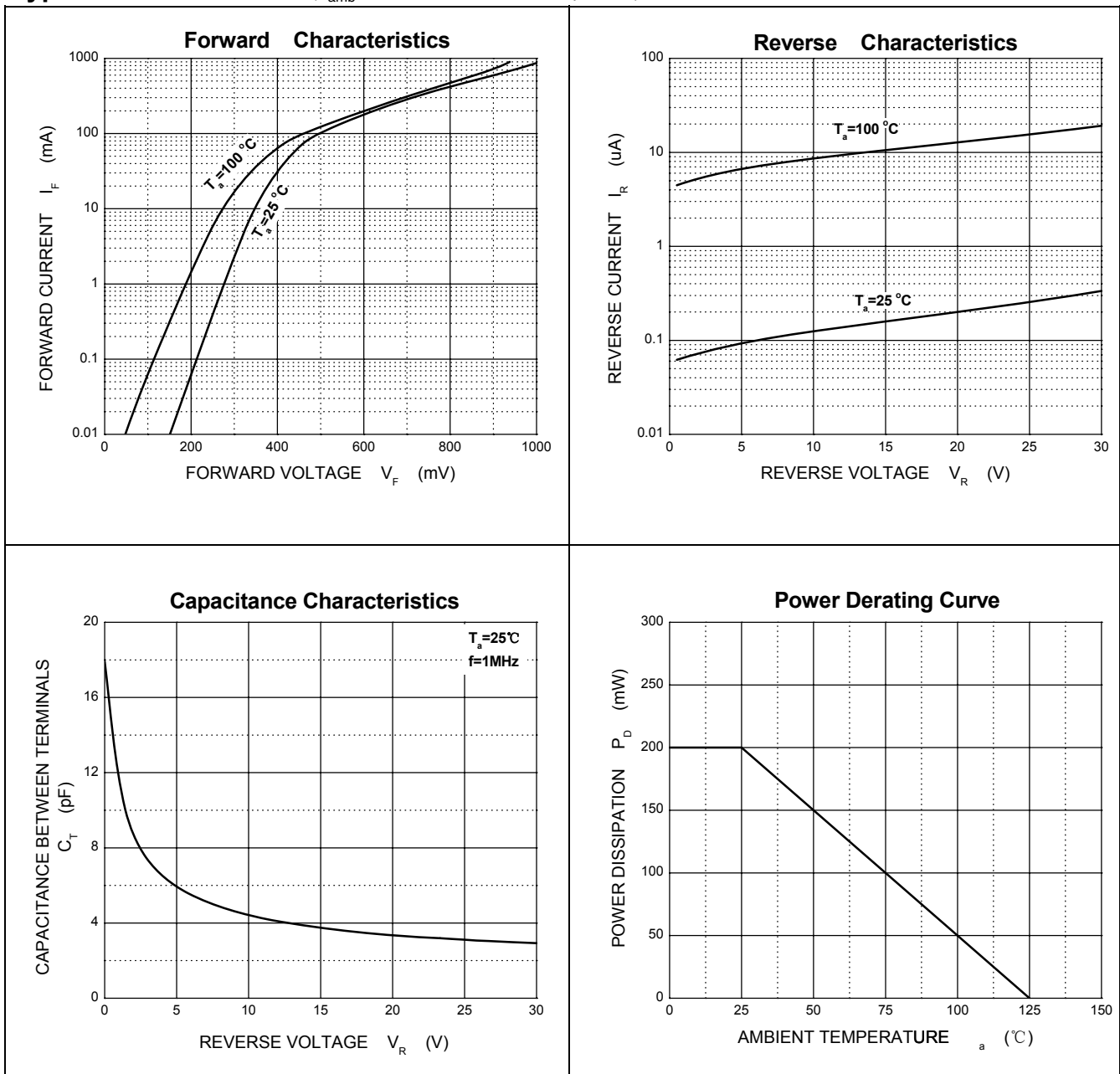
Parameter	Symbol	Limits	Unit
Peak Repetitive Peak reverse voltage	V_{RRM}	30	V
Working Peak Reverse Voltage	V_{RWM}		
DC Reverse Voltage	V_R		
Forward Continuous Current	I_F	200	mA
Repetitive Peak Forward Current	I_{FRM}	200	mA
Forward surge current @ $t < 1.0s$	I_{FSM}	600	mA
Power Dissipation	P_d	200	mW
Thermal resistance, junction to ambient air	$R_{\theta JA}$	500	°C/W
Operating and Storage temperature	T_j, T_{STG}	-55-150	°C

Electrical Characteristics

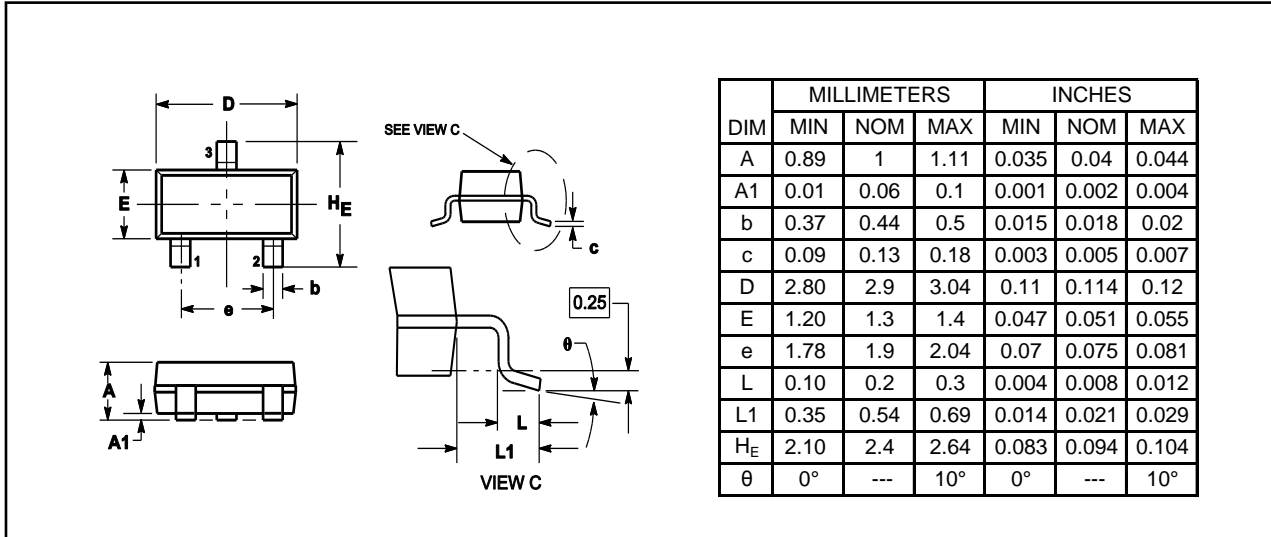
($T_A = 25\text{ }^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse Breakdown Voltage	$V_{(BR)}$	30			V	$I_R=100\mu\text{A}$
Forward voltage	V_{F1}			0.24	V	$I_F=0.1\text{mA}$
	V_{F2}			0.32	V	$I_F=1\text{mA}$
	V_{F3}			0.40	V	$I_F=10\text{mA}$
	V_{F4}			0.50	V	$I_F=30\text{mA}$
	V_{F5}			1	V	$I_F=100\text{mA}$
Reverse current	I_R			2	μA	$V_R=25\text{V}$
Diode Capacitance	C_D			10	pF	$V_R=1\text{V}, f=1\text{MHz}$
Reverse Recovery Time	t_{rr}			5	ns	$I_F=I_R=10\text{mA}$ $I_{rr}=0.1I_R, R_L=100\Omega$

Typical Characteristics ($T_{amb} = 25\text{ }^\circ\text{C}$ unless otherwise specified)



Package Dimensions



Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
BAT54 Series	SOT-23	Tape and reel	3000pcs / reel	EIA STD RS-481

Revision history

Date	Revision	Changes
23-May-2020	1.0	Initial release

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