

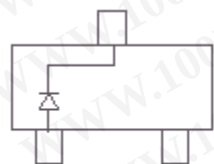
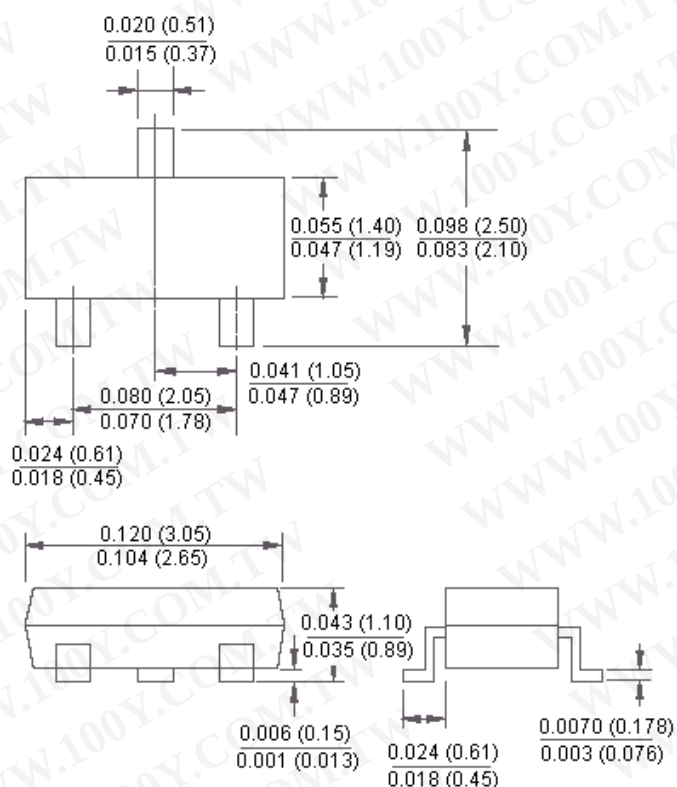
BAT54- Series



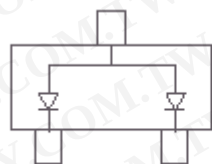
Features:

- Fast switching speed.
- Surface mount package ideally suited for automatic insertion.
- For general purpose switching applications.
- High conductance.

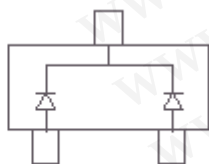
SOT-23



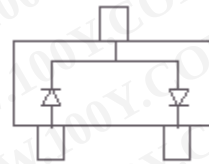
BAT54 Marking: LV3



BAT54A Marking: B6



BAT54C Marking: L43



BAT54S Marking: L44

Mechanical Data

Case	: SOT-23, moulded plastic.
Terminals	: Solderable per MIL-STD-202, Method 208.
Marking and Polarity	: See diagram.
Weight	: 0.008 gram (approximately).

勝特力材料 886-3-5753170
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BAT54- Series



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

Type Number	Symbol	Value	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	30	V
Forward Continuous Current	I_F	200	mA
Repetitive Peak Forward Current	I_{FM}	300	
Forward Surge Current at $t = 1.0\text{s}$	I_{FSM}	600	
Power Dissipation (Note 1)	P_d	200	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	500	$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +125	$^\circ\text{C}$

Electrical Characteristics

Type Number	Symbol	Minimum	Type	Maximum	Units
Reverse Breakdown Voltage (Note 1)	$V_{(BR)R}$	30	-	-	V
Reverse Leakage Current (Note 1) $V_R = 25\text{V}$	I_R	-	-	2.0	μA
Forward Voltage (Note1) $I_F = 0.1\text{mA}$ $I_F = 1.0\text{mA}$ $I_F = 10\text{mA}$ $I_F = 30\text{mA}$ $I_F = 100\text{mA}$	V_F	-	-	240 320 400 500 1000	mV
Junction Capacitance $V_R = 0, f = 1.0\text{MHz}$	C_j	-	-	10	pF
Reverse Recovery Time (Note 2)	t_{rr}	-	-	5.0	nS

Notes: 1. Short Duration Pulse Test used to Minimize Self-Heating Effect.

2. Reverse Recovery Test Conditions: $I_F = 10\text{mA}$ through $I_R = 10\text{mA}$ to $I_R = 1.0\text{mA}$, $R_L = 100\Omega$.

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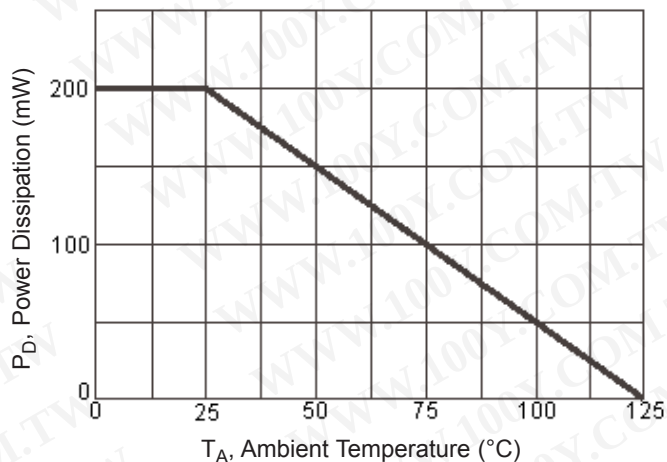
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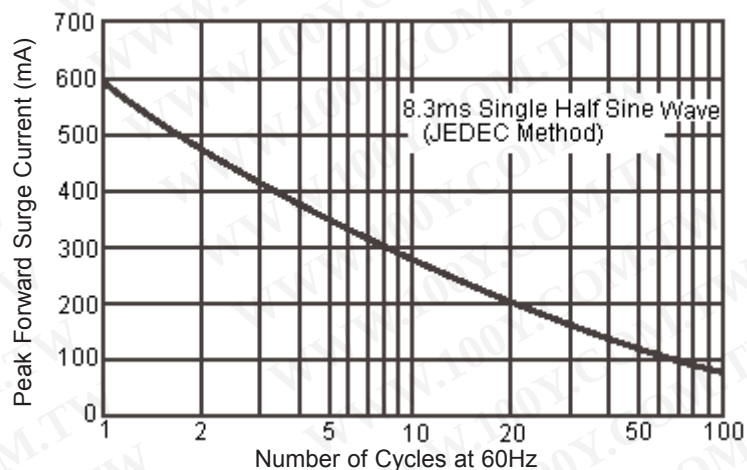


Ratings and Characteristic Curves (BAT54 / A / C / S)

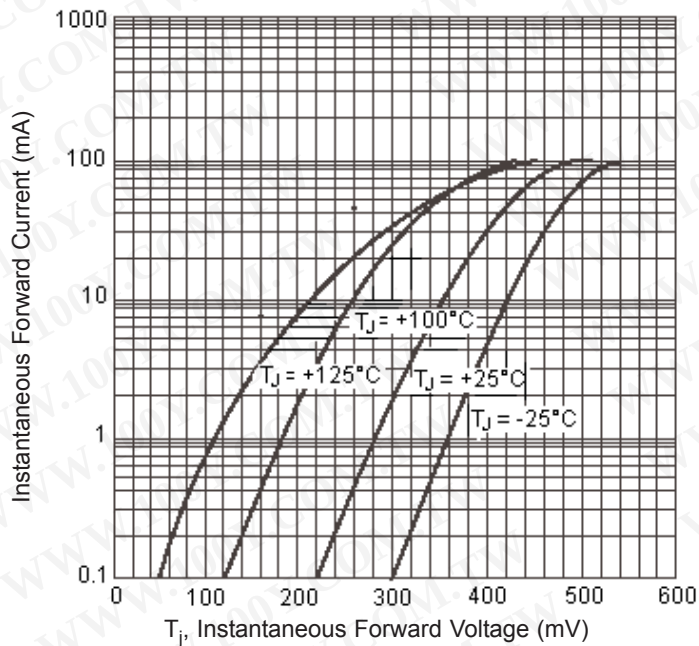
Power Derating Curve



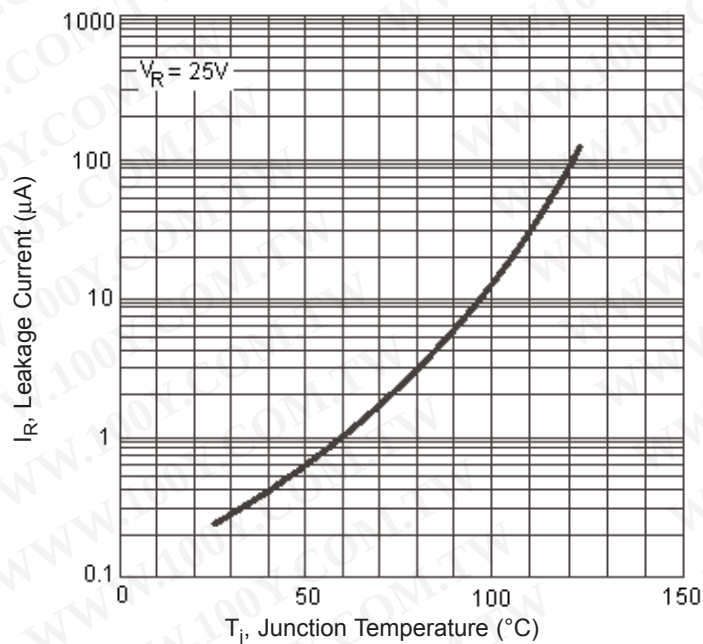
Maximum Non-Repetitive Peak Forward Surge Current Per Leg



Typical Forward Characteristics



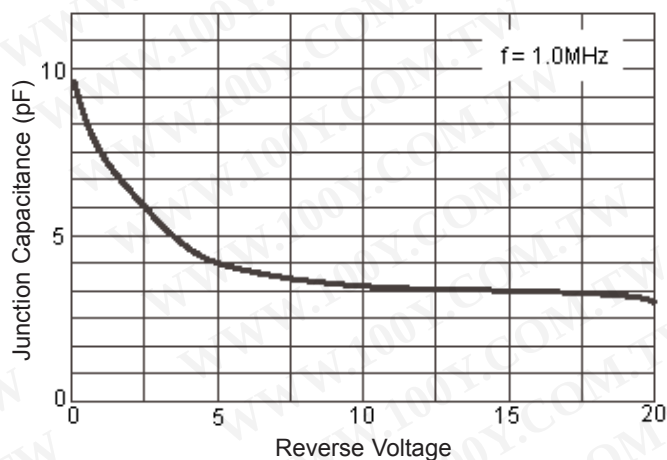
Typical Reverse Characteristics



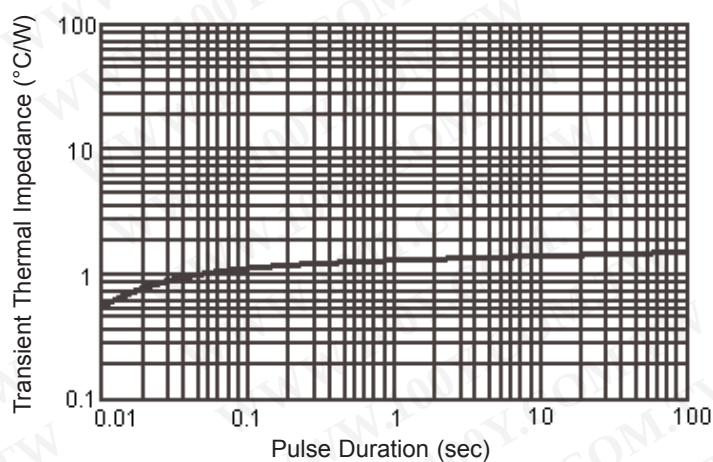
BAT54- Series



Typical Total Capacitance vs. Reverse Voltage



Typical Transient Thermal Characteristics



Part Number Table

Description	Part Number
Diode, Schottky, SOT-23	BAT54
Diode, Schottky, SOT-23	BAT54A
Diode, Schottky, SOT-23	BAT54C
Diode, Schottky, SOT-23	BAT54S

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