

Features

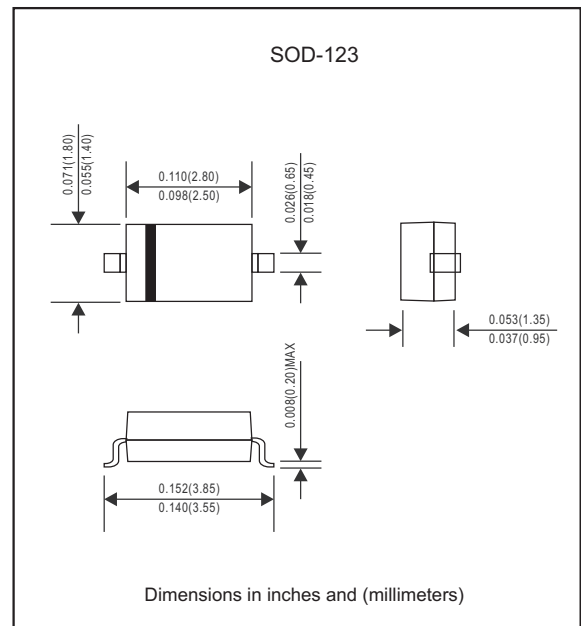
- ◆ For use in low voltage, high frequency inverters
- ◆ Free wheeling, and polarity protection applications

Mechanical data

- ◆ **Case:** JEDEC SOD-123 molded plastic body
- ◆ **Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026
- ◆ **Polarity:** Color band denotes cathode end
- ◆ **Mounting Position:** Any



Package outline



Maximum ratings and Electrical Characteristics (AT $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbols	BAT54W	Units
Peak Repetitive Reverse Voltage	V_{RRM}	30	V
Maximum Average Forward Current at $T_a=25^{\circ}\text{C}$	I_O	0.2	A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	13	A
Maximum Instantaneous Forward Voltage	V_F	0.32 @ $I_F=0.001\text{A}$ 1.0 @ $I_F=0.1\text{A}$	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	2.0 @ $V_R=25\text{V}$	μA
Typical Thermal Resistance	$R_{\theta JA}$	435	$^{\circ}\text{C}/\text{W}$
Typical Junction Capacitance at $V_R=0\text{V}$, $f=1\text{MHz}$	C_j	60	pF
Storage and Operating Junction Temperature Range	T_j, T_{stg}	-55 ~ +125	$^{\circ}\text{C}$

NOTES:(1)P.C.B. mounted with 5*5mm copper pad areas.

Rating and characteristic curves

Fig.1 Forward Current Derating Curve

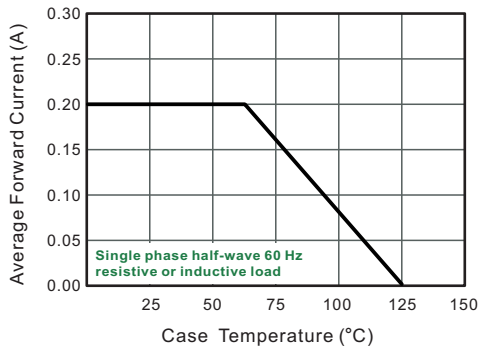


Fig.2 Typical Reverse Characteristics

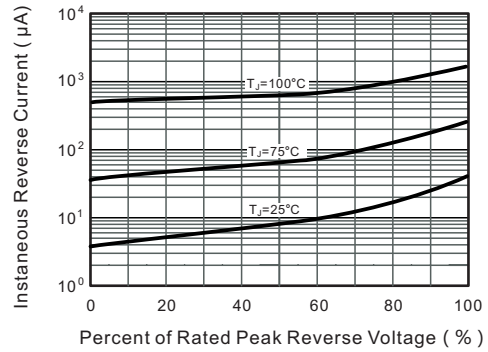


Fig.4 Typical Forward Characteristics

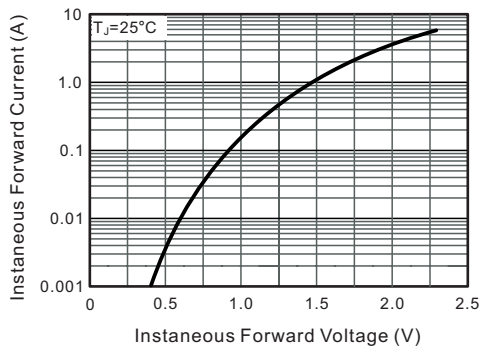


Fig.4 Typical Junction Capacitance

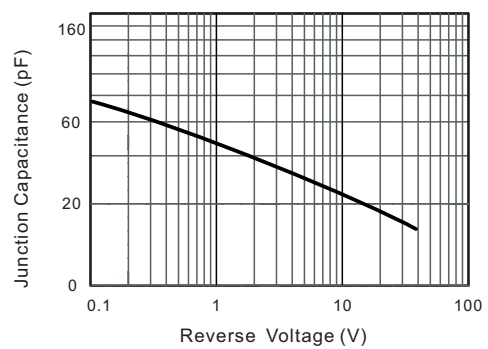


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

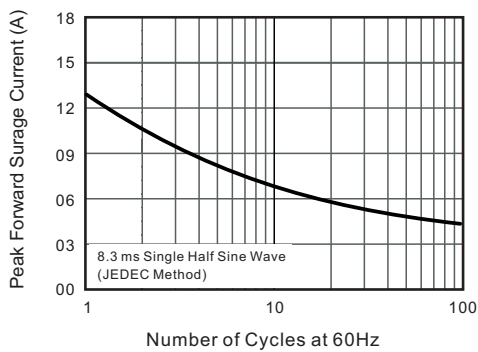
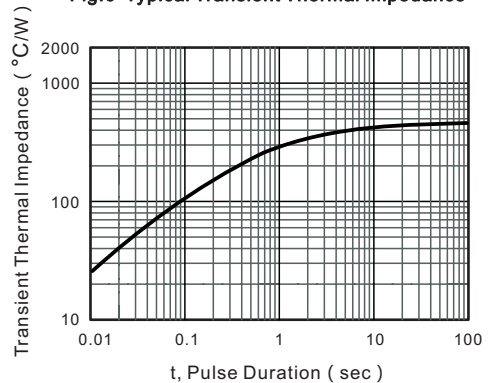


Fig.6 Typical Transient Thermal Impedance



Marking

Type number	Marking code
BAT54W	L9