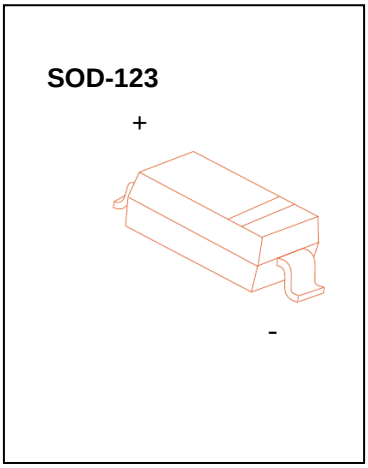
UDE SOD-123 Plastic-Encapsulate Diodes

BAT54W SCHOTTKY DIODE



Features

- Low Turn-on Voltage
- Fast Switching
- Ultra-Small Surface Mount Package
- PN Junction Guard Ring for Transient and ESD Protection

MARKING: L9

Maximum Ratings @T_A=25℃

Parameter	Symbol	Limits	Unit
DC Blocking Voltage **RMS reverse voltage**	V_R $V_{R(RMS)}$	30 21	V
Average Rectified Output Current	I_O	100	mA
Forward continuous Current	I_F	200	mA
Repetitive peak Forward Current	I_{FRM}	300	mA
Forward Surge Current @t<1s	I_{FSM}	600	mA
Power Dissipation	Pd	500	mW
Thermal resistance,junction to ambient air	$R_{\theta JA}$	250	℃/W
Junction temperature	T_J	150	℃
Storage temperature range	T_{STG}	-65-150	℃

Electrical Characteristics @T_A=25℃

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	I_R=100μA	30			V
Forward voltage	V_{F1}	I_F=0.1mA			240	mV
	V_{F2}	I_F=1.0mA			320	mV
	V_{F3}	I_F=10mA			400	mV
	V_{F4}	I_F=30mA			500	mV
	V_{F5}	I_F=100mA			1000	mV
Reverse current	I_R	V_R=25V			2.0	uA
Reverse recovery time	t_{rr}	I_F=10mA, I_R=10mA to 1mA , R_L=100Ω			5.0	ns
Capacitance between terminals	C_T	V_R=1V,f=1MHz			10	pF

Typical Characteristics

BAT54W

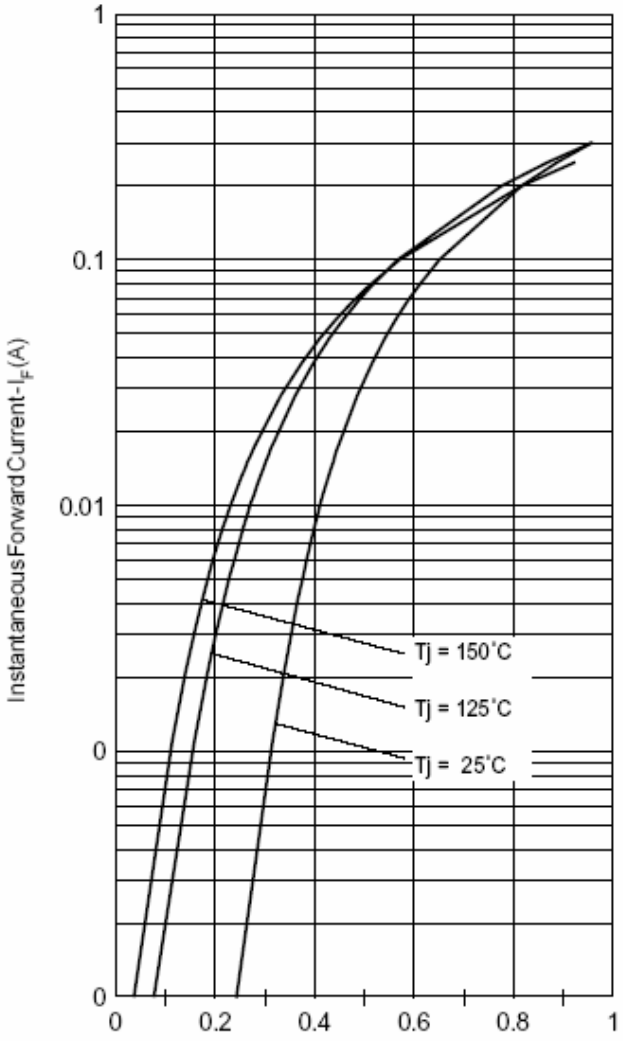


Fig. 1 - Max. Forward Voltage Drop Characteristics (Per Leg)

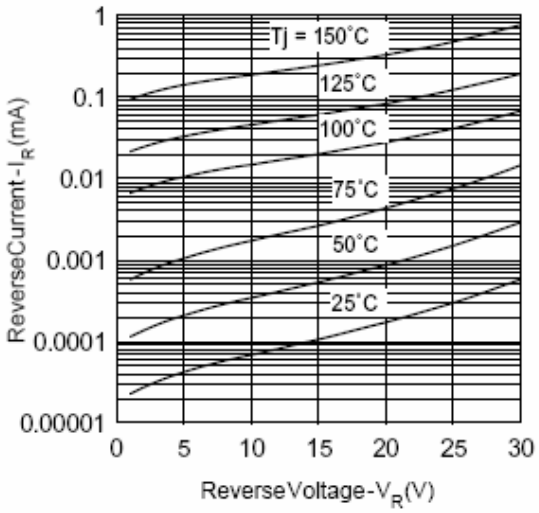


Fig. 2 - Typical Values Of Reverse Current Vs. Reverse Voltage (Per Leg)

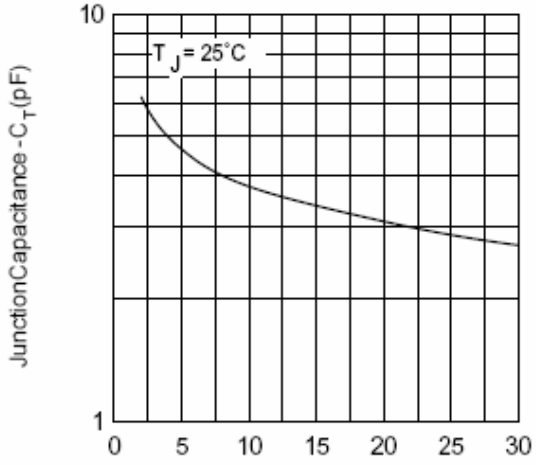


Fig. 3 - Typical Junction Capacitance Vs. Reverse Voltage (Per Leg)

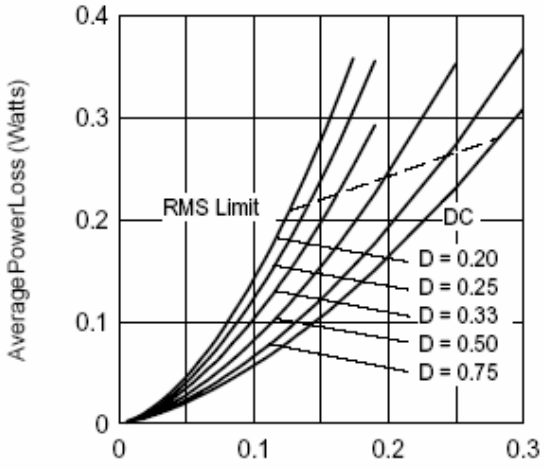


Fig. 4 - Forward Power Loss Characteristics

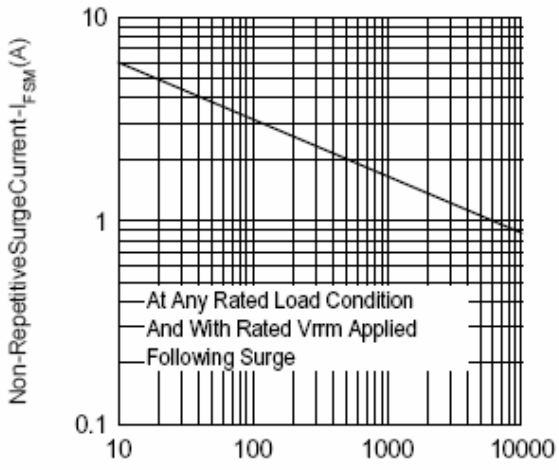


Fig. 5 - Max. Non-Repetitive Surge Current