



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

SOD-323 Plastic-Encapsulate Diodes

BAT54WS

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

SOD-323



Maximum Ratings @T_A=25°C

Parameter	Symbol	Limits	Unit
Non-Repetitive Peak reverse voltage	V _{RM}	30	V
DC Blocking Voltage	V _R	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	I _{FSM}	600	mA
Power Dissipation	P _d	200	mW
Thermal resistance, junction to ambient air	R _{θJA}	625	K/W
Junction temperature	T _J	125	°C
Storage temperature range	T _{STG}	-65-150	°C

Electrical Characteristics @T_A=25°C

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 =100 Ω			5.0	ns
Capacitance between terminals	C _T	V _R =0, f=1MHz			10	pF

Typical Characteristics

BAT54WS

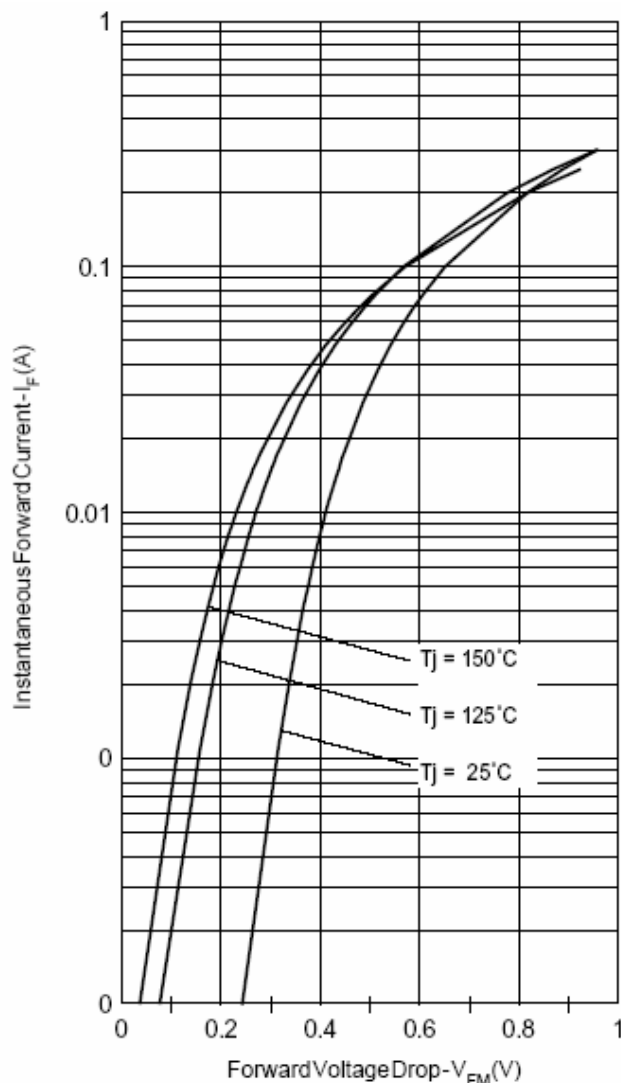


Fig. 1 - Max. Forward Voltage Drop Characteristics (Per Leg)

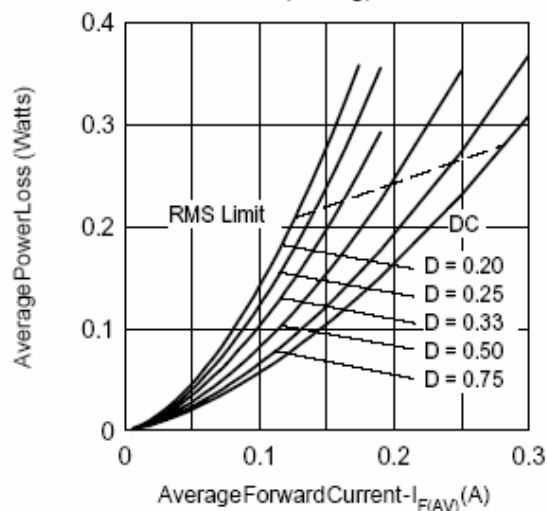


Fig. 4 - Forward Power Loss Characteristics

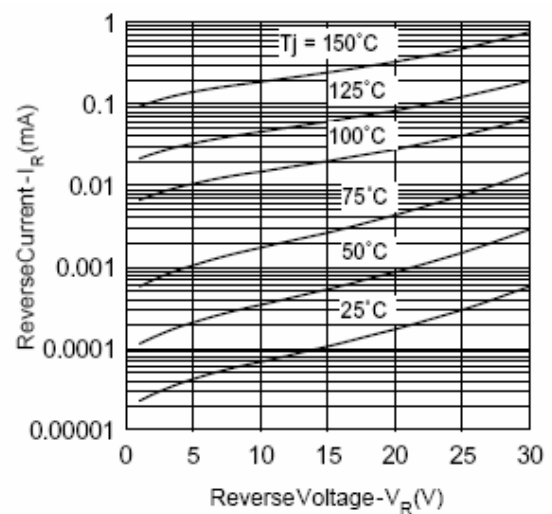


Fig. 2 - Typical Values Of Reverse Current Vs. Reverse Voltage (Per Leg)

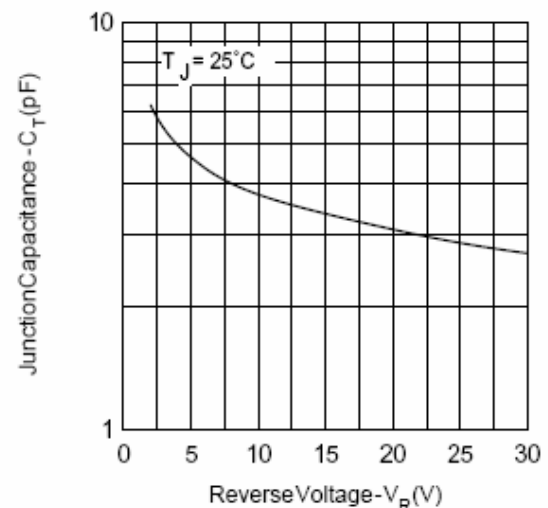


Fig. 3 - Typical Junction Capacitance Vs. Reverse Voltage (Per Leg)

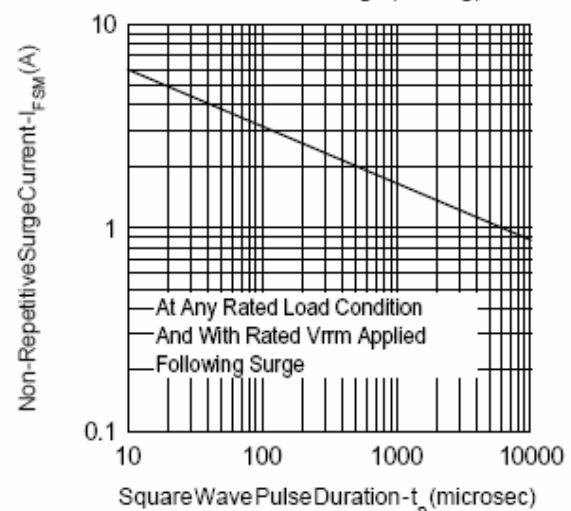


Fig. 5 - Max. Non-Repetitive Surge Current