

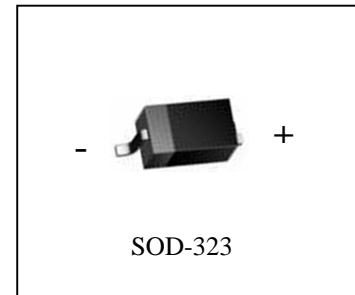
SCHOTTKY BARRIER DIODE

BAT54WS

FEATURES

- Low turn-on voltage.
- Fast switching.
- Ultra-small surface mount package.
- PN junction guard ring for transient and ESD protection.

MARKING : L9



MAXIMUM RATING @ Ta=25°C unless otherwise specified

Parameter	Symbol	Limits	Unit
Peak Repetitive reverse voltage	V _R RM	30	V
Working peak reverse voltage	V _R WM		
DC reverse voltage	V _R		
RMS Reverse Voltage	V _R (RMS)	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<1.0s	I _{FSM}	600	mA
Power Dissipation	P _d	200	mW
Thermal resistance,junction to ambient air	R _{JA}	625	°C/W
Junction temperature	T _J	125	°C
Storage temperature range	T _{stg}	-65-90	°C

ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

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 leakage current	I _R	V _R =25V			2.0	μA
Reverse recovery time	t _{rr}	I _F =10mA,I _R =10mA to 1mA R _L =100			5.0	ns
Junction capacitance	C _J	V _R =1.0V,f=1.0MHz			10	pF

BAT54WS Typical Characteristics

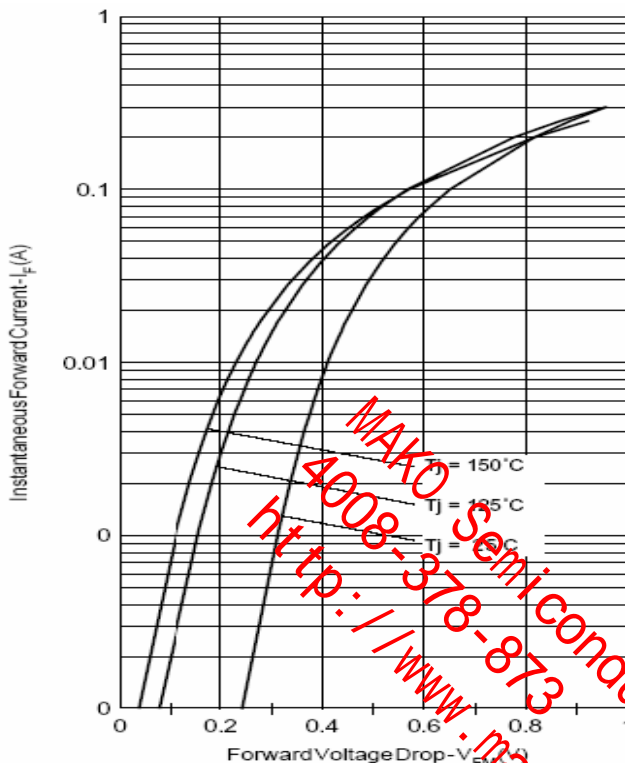


Fig. 1 - Max. Forward Voltage Drop Characteristics (Per Leg)

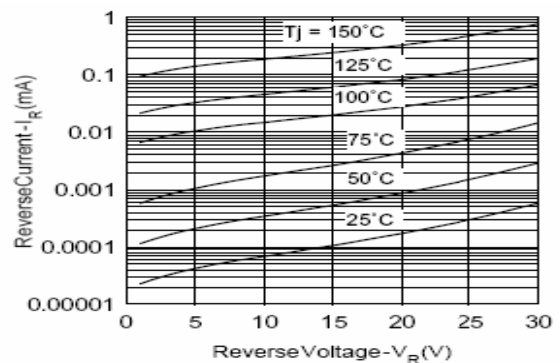


Fig. 2 - Typical Values Of Reverse Current Vs. Reverse Voltage (Per Leg)

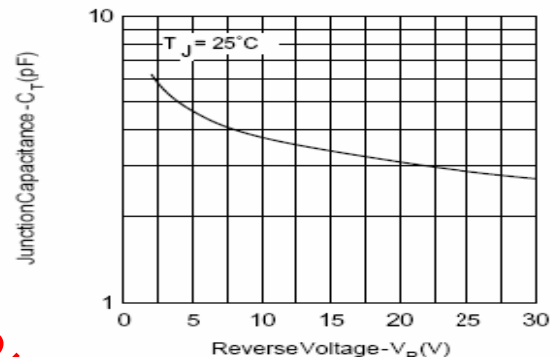


Fig. 3 - Typical Junction Capacitance Vs. Reverse Voltage (Per Leg)

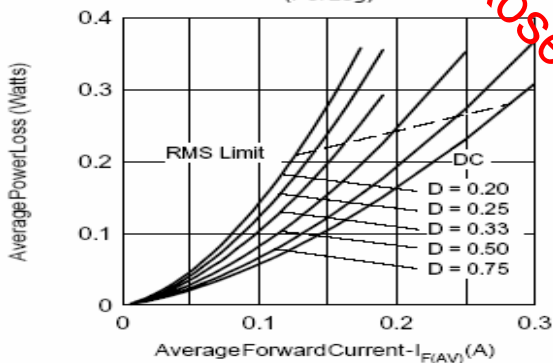


Fig. 4 - Forward Power Loss Characteristics

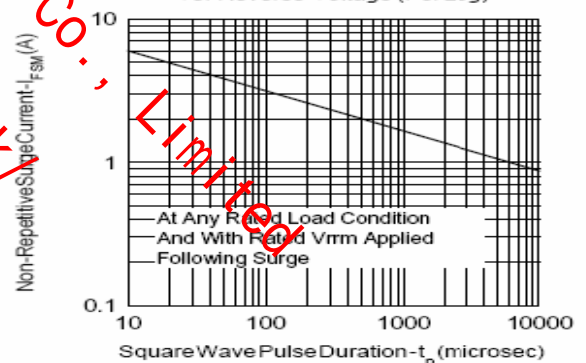


Fig. 5 - Max. Non-Repetitive Surge Current