SOD-123 SCHOTTKY BARRIER DIODE

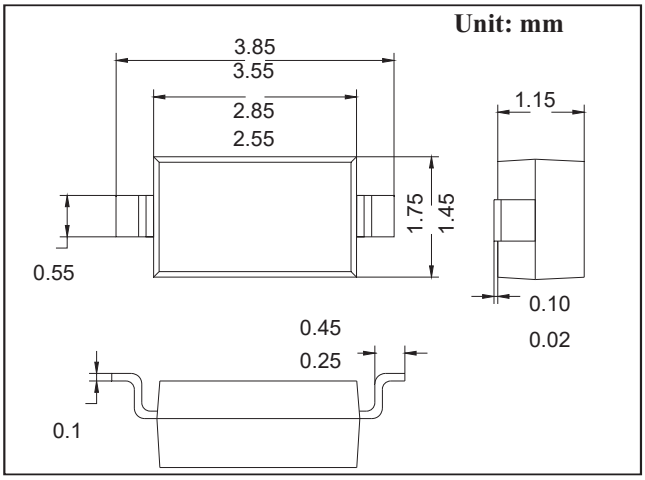
VOLTAGE RANGE: 30V PEAK PULSE POWER:500mW

FEATURES

- Low Forward Voltage Drop
- Guard Ring Construction for Transient
- Protection Negligible Reverse Recovery Time
- Very Low Reverse Capacitance

MECHANICAL DATA

- Case: SOD-123 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	BAT42W/BAT43W	Unit
Peak Repetitive Peak Reverse Voltage Working Peak Reverse Voltag DC Blocking Voltage	V_{RRM} V_{RWM} V_R	30	V
RMS Reverse Voltage	$V_{R(RMS)}$	21	V
Forward Continuous Current	I_{FM}	200	mA
Repetitive Peak Forward Current @t<1.0s	I_{FRM}	500	mA
Non-repetitive Peak Forward Surge Curren t @t=8.3ms	I_{FSM}	4.0	A
Power Dissipation	P_D	500	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	200	℃/W
Junction temperature	T_J	125	℃
Storage Temperature	T_{STG}	-55~+150	℃

Electrical Specification (T_A=25°C unless otherwise specified)

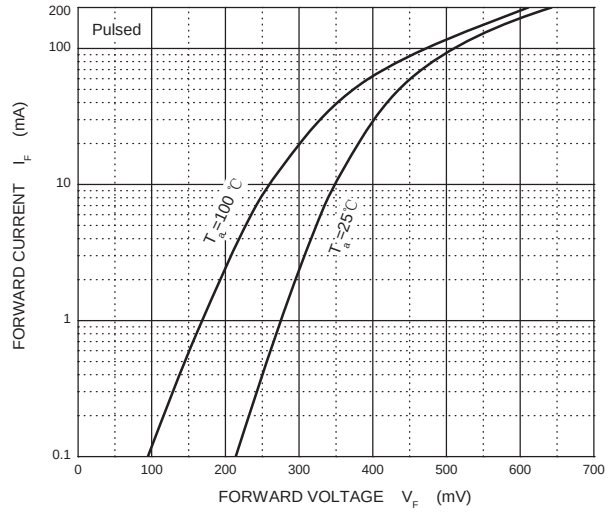
Parameter		Symbol	Min	Typ	Max	Unit	Conditions
Reverse breakdown voltage		$V_{(BR)}$	30			V	IR=10μA
Forward voltage	A ll Types	V_F			1.0	V	I_F=200mA
	BAT42W	V_F			0.4	V	I_F=10mA
	BAT42W	V_F			0.65	V	I_F=50mA
	BAT43W	V_F	0.26		0.33	V	I_F=2mA
	BAT43W	V_F			0.45	V	I_F=15mA
Reverse current		I_R			0.5	μA	V_R=25V
Capacitance between terminals		C_T			10	pF	V_R=1.0V,f=1.0MHz
Reverse recovery time		t_{rr}			5	ns	I_F=I_R=10mA Irr=0.1XI_R,R_L=100Ω

MARKING:

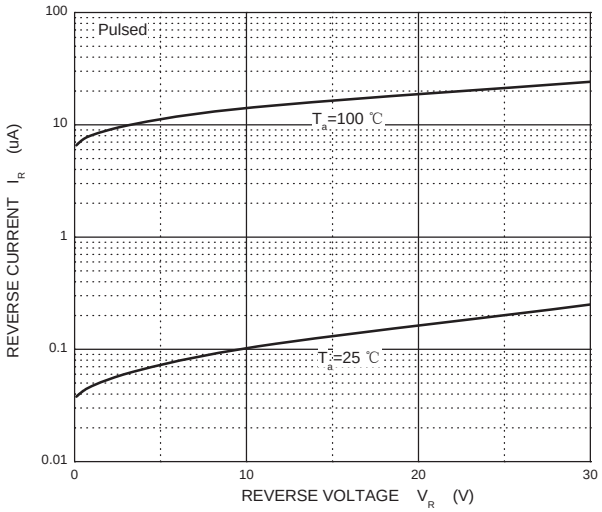
BAT42W	BAT43W
S7	S8

RATINGS AND CHARACTERISTIC CURVES

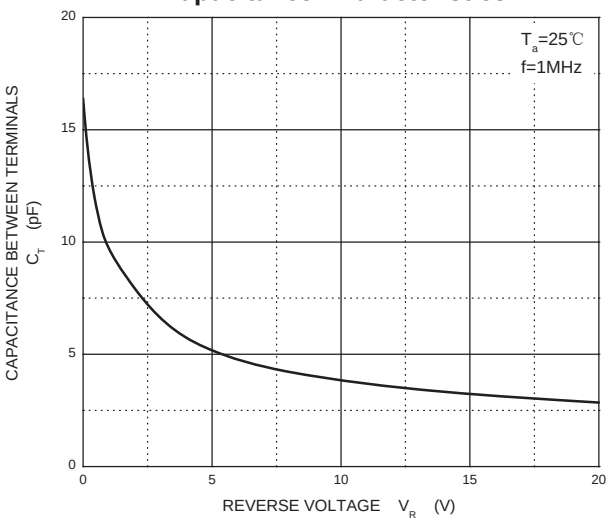
Forward Characteristics



Reverse Characteristics



Capacitance Characteristics



Power Derating Curve