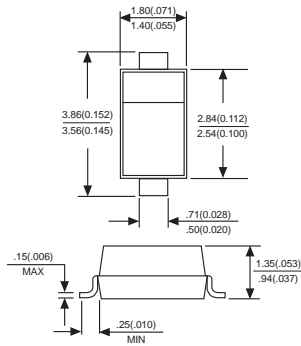




BAT54T

SCHOTTKY DIODE

SOD-123



Dimensions in millimeters and (inches)

FEATURES

- ◆ Low forward voltage drop
- ◆ Fast switching time
- ◆ Surface mount package ideally suited for automatic insertion

MECHANICAL DATA

Case: Molded plastic body
Terminals: Plated leads solderable per MIL-STD-750, Method 2026
Polarity: Polarity symbols marked on case
Marking: L9

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Maximum ratings and electrical characteristics, Single diode @T_A=25°C

PARAMETER	SYMBOLS	LIMITS	UNITS
DC Blocking voltage	V _R	21	V
Average rectified output current	I _o	100	mA
Forward continuous current	I _{FM}	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	T _{STG}	-65 to +150	°C
Non-Repetitive peak reverse voltage	V _{RM}	30	V

Electrical ratings @T_A=25°C

PARAMETER	SYMBOLS	Min.	Typ.	Max.	Unit	Conditions
Reverse breakdown voltage	V _{(BR)R}	30			V	I _R =100uA
Forward voltage	V _{F1}			240	mV	I _F =0.1mA
	V _{F2}			320	mV	I _F =1.0mA
	V _{F3}			400	mV	I _F =10mA
	V _{F4}			500	mV	I _F =30mA
	V _{F5}			1000	mV	I _F =100mA
Reverse current	I _R			2.0	uA	V _R =25V
Capacitance between terminals	C _T			10	pF	V _R =0, f=1.0MHz
Reverse recovery time	t _{rr}			5.0	ns	I _F =10mA, I _R =10mA to 1mA R _L =100Ω

RATINGS AND CHARACTERISTIC CURVES BAT54T

INSTANTANEOUS FORWARD CURRENT- I_F (A)

FIG. 1- MAX.FORWARD VOLTAGE DROP CHARACTERISTICS(PER LEG)

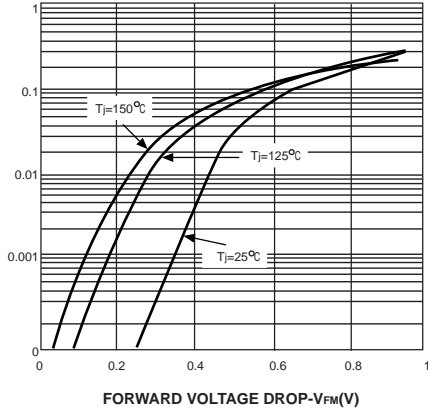
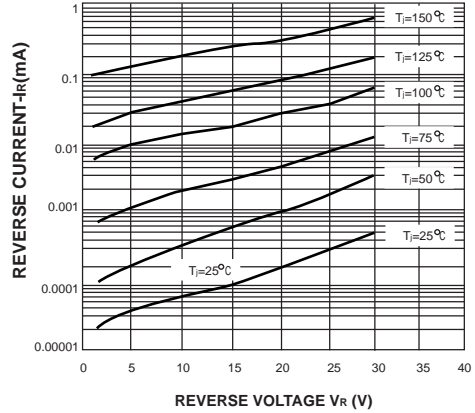
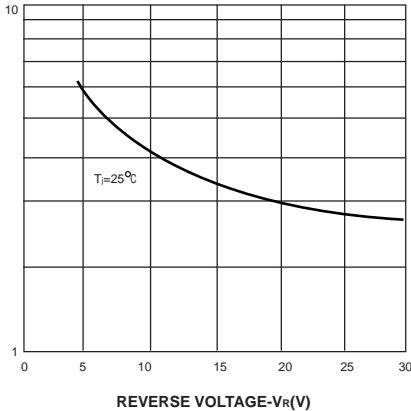


FIG. 2-TYPICAL VALUES OF REVERSE CURRENT VS REVERSE VOLTAGE (PER LEG)



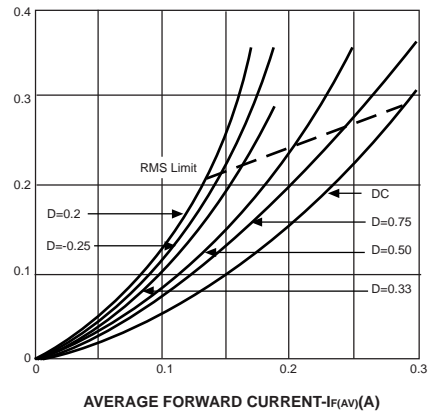
JUNCTION CAPACITANCE- C_j (pF)

FIG. 3- TYPICAL JUNCTION CAPACITANCE



AVERAGE PWER LOSS (Watts)

FIG. 4- FORWARD POWER CHARACTERISTICS



NON-REPETITIVE SURGE CURRENT- I_{FSM} (A)

FIG. 5- MAX NON-REPETITIVE SURGE CURRENT

