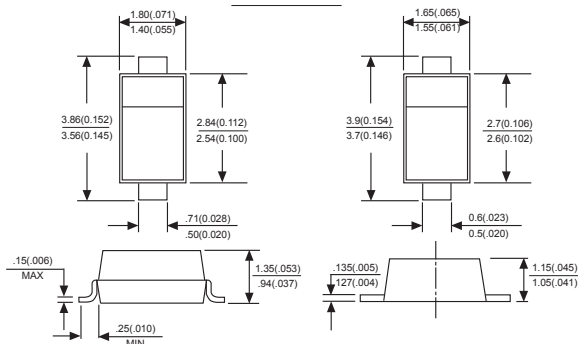


BAT42W-BAT43W

SCHOTTKY DIODES

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: BAT42W:S7, BAT43W:S8

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOLS	BAT42W/BAT3W	UNITS
Peak repetitive peak reverse voltage	V _{RRM}	30	VOLTS
Working peak	V _{RWM}		
DC Blocking voltage	V _R		
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
Peak forward surge current @t<10ms	I _{FSM}	4.0	A
Power dissipation	P _d	200	mW
Thermal resistance junction to ambient	R _{θJA}	500	K/W
Storage temperature	T _{STG}	-55 to +125	°C

Electrical ratings @T_A=25°C

PARAMETER	SYMBOLS	Min.	Typ.	Max.	Unit	Conditions
Reverse breakdown voltage	V _{(BR)R}	30			V	I _R =100μA
Forward voltage	V _F			1.0	V	I _F =200mA
	V _F			0.4	V	I _F =10mA
	V _F			0.65	V	I _F =50mA
	V _F	0.26		0.33	V	I _F =2mA
	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 =1V, f=1.0MHz
Reverse recovery time	t _{rr}			5	ns	I _F =I _R =10mA I _{rr} =0.1X I _R , R _L =100Ω

RATINGS AND CHARACTERISTIC CURVES BAT42WE/BAT43W

FIG. 1- FORWARD CURRENT DERATING CVRVE

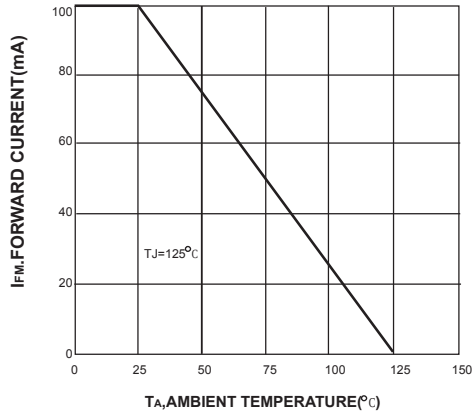


FIG. 2-TYPICAL FORWARD CHARACTERISTIC

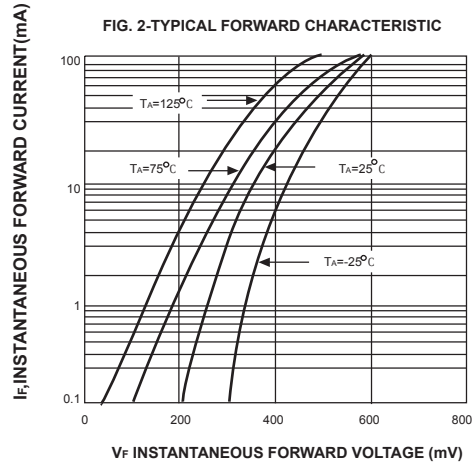


FIG. 3- TYPICAL REVERSE CHARACTERISTICS

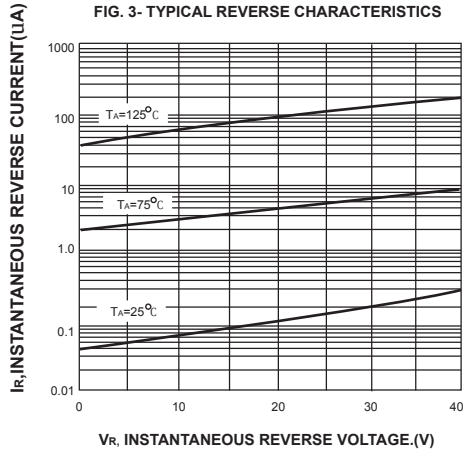


FIG. 4- TOTAL CAPACITANCE VS REVERSE VOLTAGE

