



BAT30S

SMALL SIGNAL SCHOTTKY DIODES

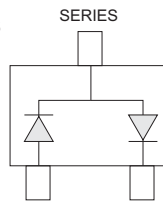
VOLTAGE 30 Volts **CURRENT** 300 mA

FEATURES

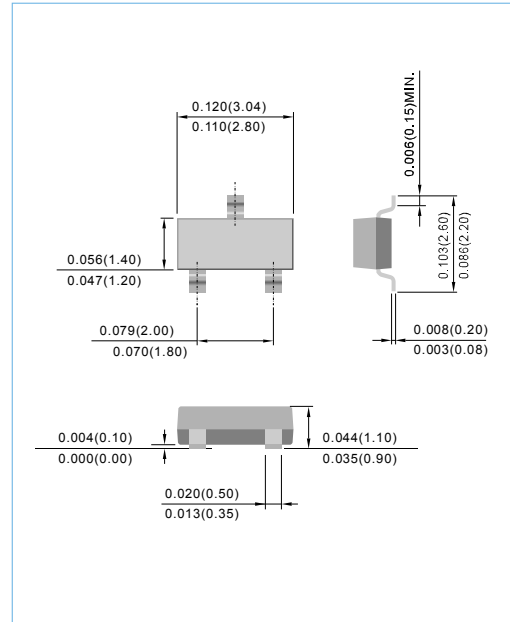
- Very low conduction losses
- Negligible switching losses
- Low forward and reverse recovery times
- Extremely Fast Switching
- Surface mount device
- Low capacitance diode
- Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case: SOT-23, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Weight: 0.0003 ounce, 0.0084 gram
- Marking : L33



SOT-23 Unit: inch (mm)



ABSOLUTE RATINGS@ T_J=25°C, UNLESS OTHERWISE SPECIFIED

PARAMETER	SYMBOL	VALUE	UNIT
Repetitive peak reverse voltage	V _{RRM}	30	V
Continuous forward current	I _O	300	m A
Surge non repetitive forward current	I _{FSM}	1	A
tp=8.3ms Sinusoidal			
Storage temperature range	T _{STG}	-65 to + 150	°C
Operating junction temperature (Note 1)	T _J	150	°C
Soldering temperature	T _L	260	°C

1. Pulse test : tp=5ms, δ < 2%

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	VALUE	UNIT
Junction to ambient (Note 2)	R _{JA}	500	°C/W

2. On epoxy printed circuit board with recommended pad layout



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ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	TEST CONDITIONS		MIN.	TYP.	MAX.	UNIT
Reverse leakage current (Note 3)	I _R	T _J =25°C	V _R =5V	-	-	0.5	μA
			V _R =10V	-	-	1	
		V _R =25V	-	0.65	3		
		T _J =70°C	V _R =10V	-	7	20	
		T _J =85°C	V _R =10V	-	18	50	
Forward voltage drop (Note 4)	V _F	T _J =25°C	I _F =0.1mA	-	-	240	mV
			I _F =1mA	-	-	300	
			I _F =10mA	-	-	375	
			I _F =30mA	-	-	430	
			I _F =100mA	-	-	500	
			I _F =200mA	-	-	580	
			I _F =300mA	-	530	-	

3. Pulse test : tp=5ms, δ < 2%

4. Pulse test : tp=380μs, δ < 2%

DYNAMIC CHARACTERISTICS

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Total Capacitance	C _T	V _R =0V, F=1MHz	-	-	65	pF
		V _R =1V, F=1MHz	-	-	40	
		V _R =10V, F=1MHz	-	-	17	



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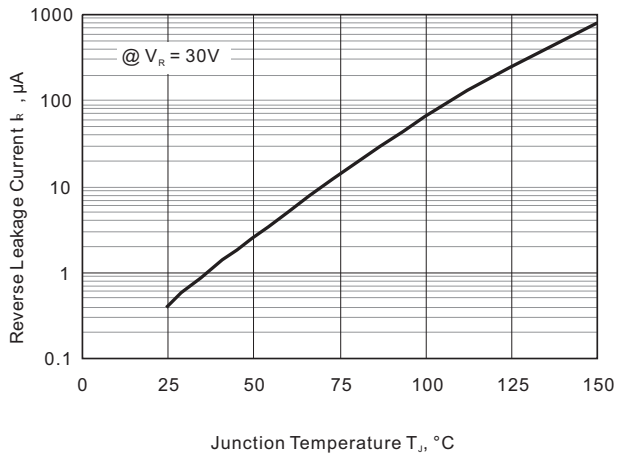


FIG. 1-Reverse Leakage Current vs. Junction Temperature

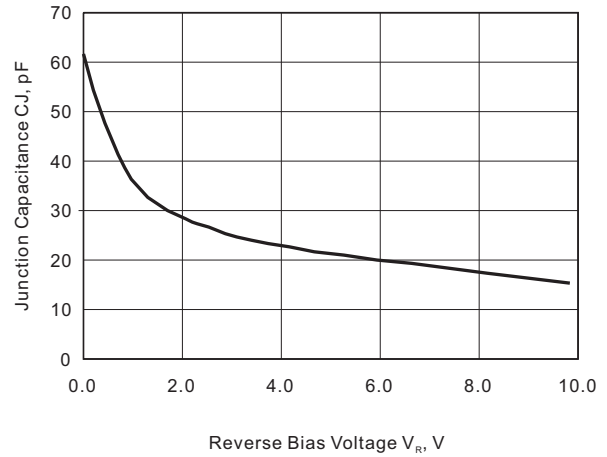


FIG. 2-Typical Junction Capacitance under Bias

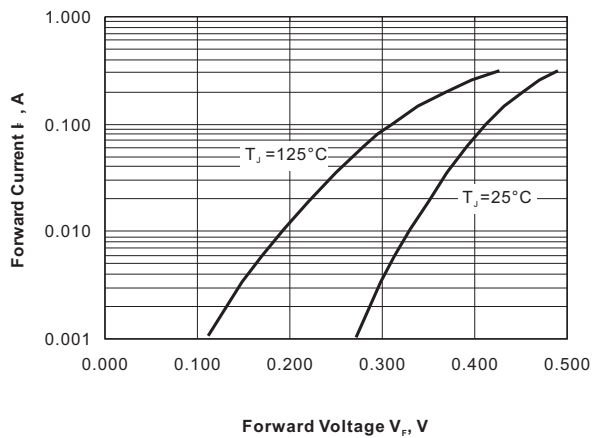
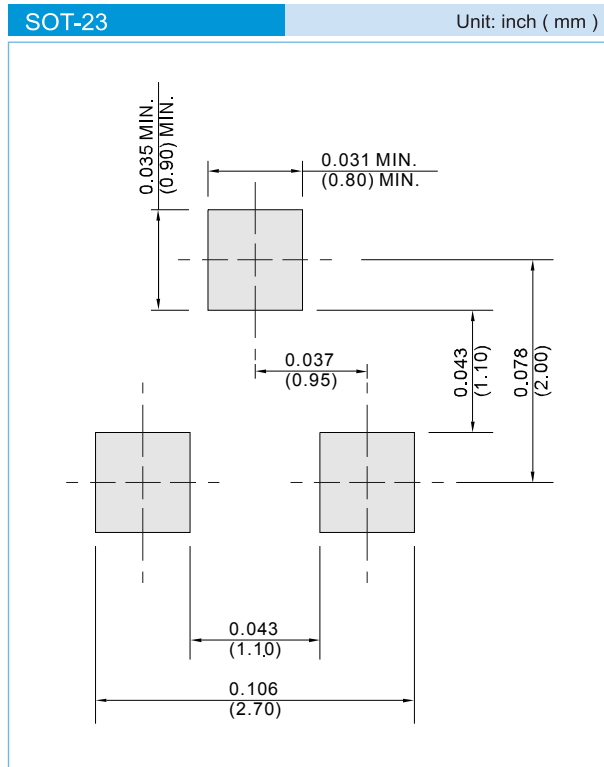


FIG. 3 Typical Forward Voltage characteristic



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 12K per 13" plastic Reel
 - T/R - 3K per 7" plastic Reel



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Part No_packing code_Version

BAT30S_R1_00001

BAT30S_R2_00001

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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