



BAT30S

SMALL SIGNAL SCHOTTKY DIODES

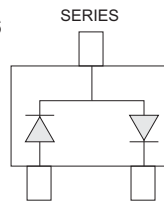
VOLTAGE 30 Volts **CURRENT** 300 mA

FEATURES

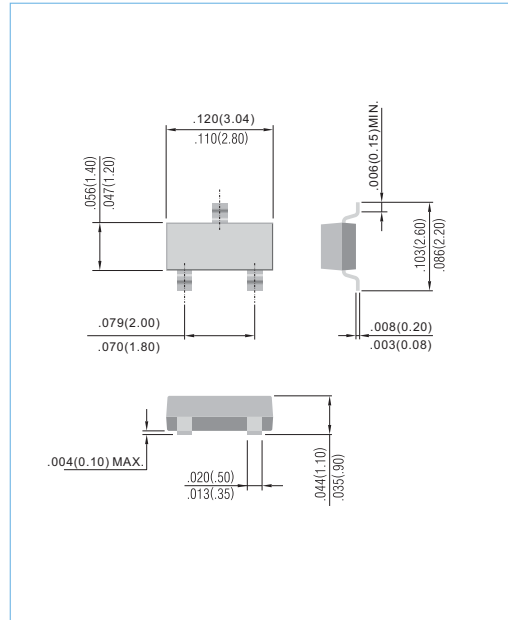
- Very low conduction losses
- Negligible switching losses
- Low forward and reverse recovery times
- Extremely Fast Switching
- Surface mount device
- Low capacitance diode
- In compliance with EU RoHS 2002/95/EC directives

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 _{θJA}	500	°C/W

2. On epoxy printed circuit board with recommended pad layout



BAT30S

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	
V _R =30V	-		-	5			
		T _J =70°C	V _R =10V	-	7	20	
		T _J =85°C		-	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 V _R =1V, F=1MHz V _R =10V, F=1MHz	-	-	65 40 17	pF



BAT30S

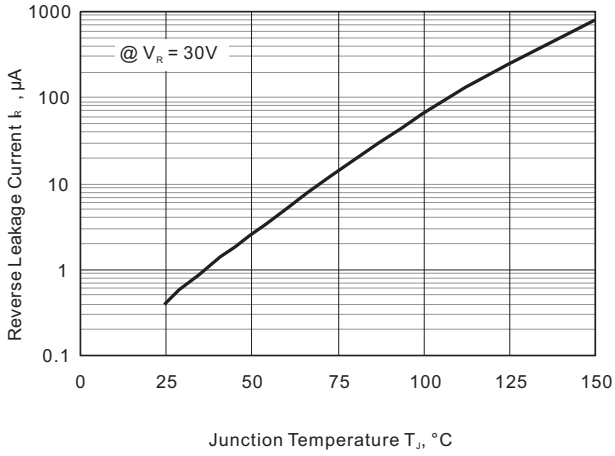


FIG. 1-Reverse Leakage Current vs. Junction Temperature

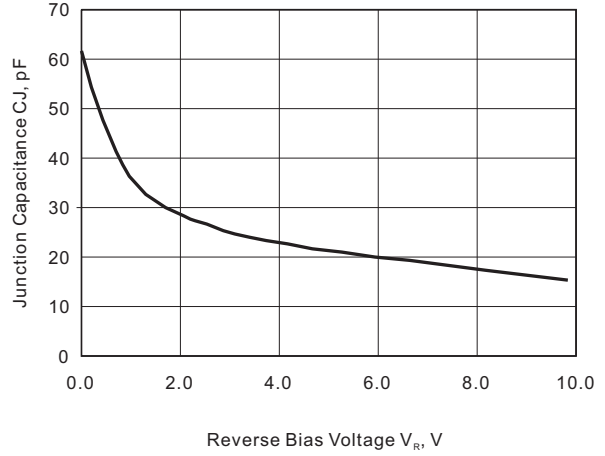


FIG. 2-Typical Junction Capacitance under Bias

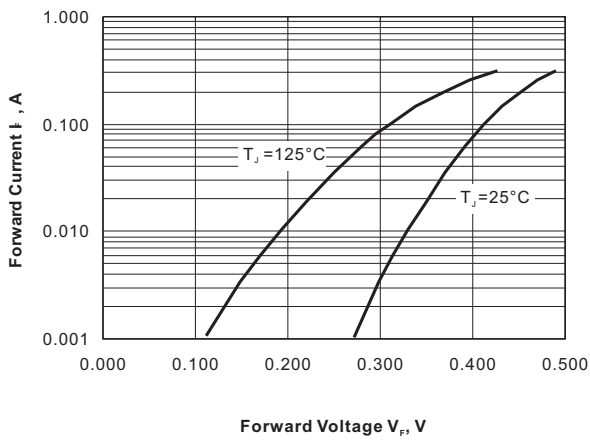
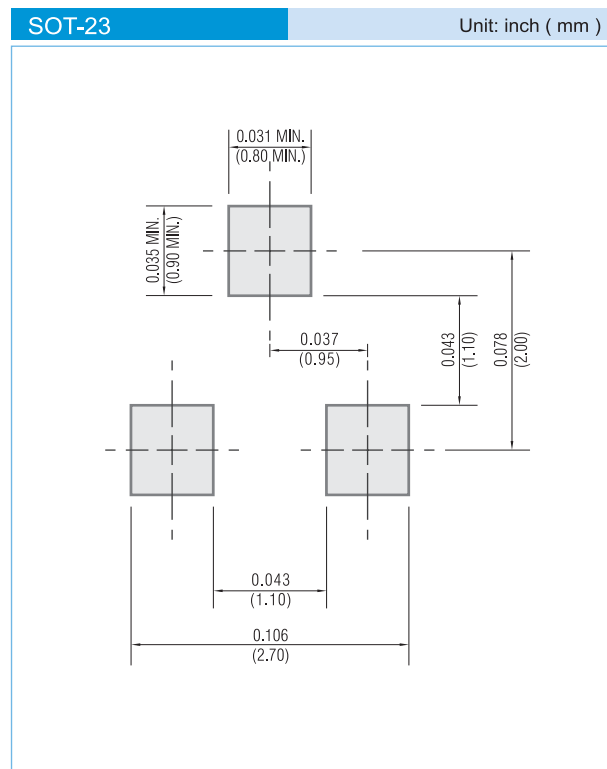


FIG. 3 Typical Forward Voltage characteristic



BAT30S

MOUNTING PAD LAYOUT



ORDER INFORMATION

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

LEGAL STATEMENT

Copyright PanJit International, Inc 2010

The information presented in this document is believed to be accurate and reliable. The specifications and information herein are subject to change without notice. Pan Jit makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose. Pan Jit products are not authorized for use in life support devices or systems. Pan Jit does not convey any license under its patent rights or rights of others.