



BAT30S

SMALL SIGNAL SCHOTTKY DIODES

VOLTAGE 30 Volt **CURRENT** 300 mA

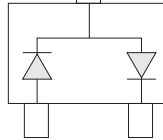
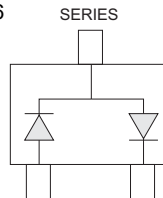
SOT-23 Unit : inch(mm)

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 compliance with EU RoHS 2011/65/EU directive
- 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



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	mA
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	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 : t_p=5ms, δ < 2%

4. Pulse test : t_p=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

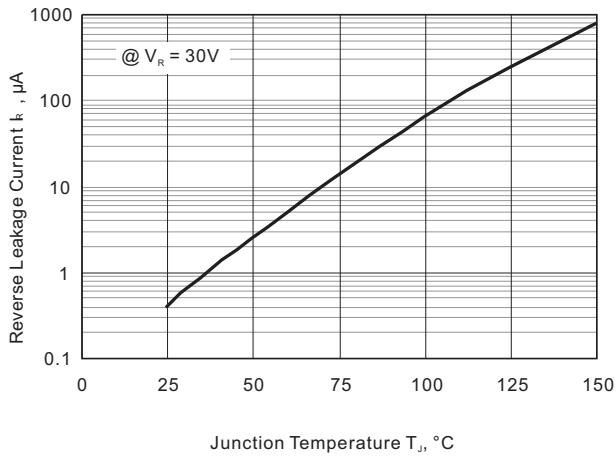


FIG. 1-Reverse Leakage Current vs. Junction Temperature

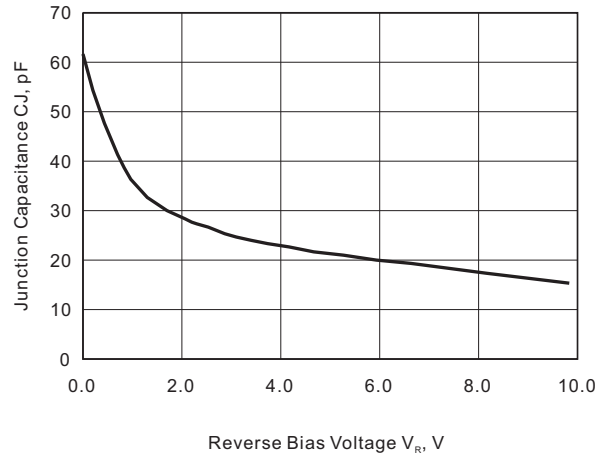


FIG. 2-Typical Junction Capacitance under Bias

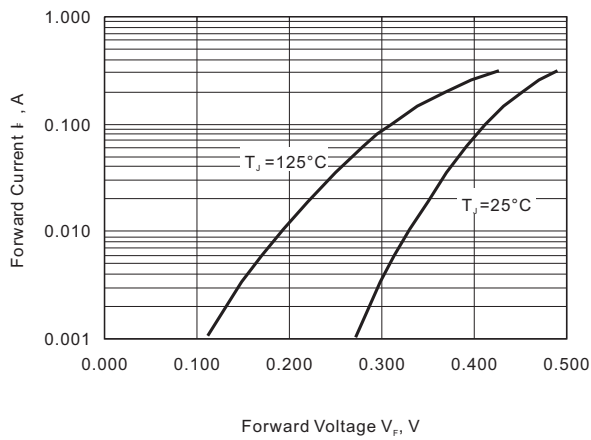


FIG. 3 Typical Forward Voltage characteristic

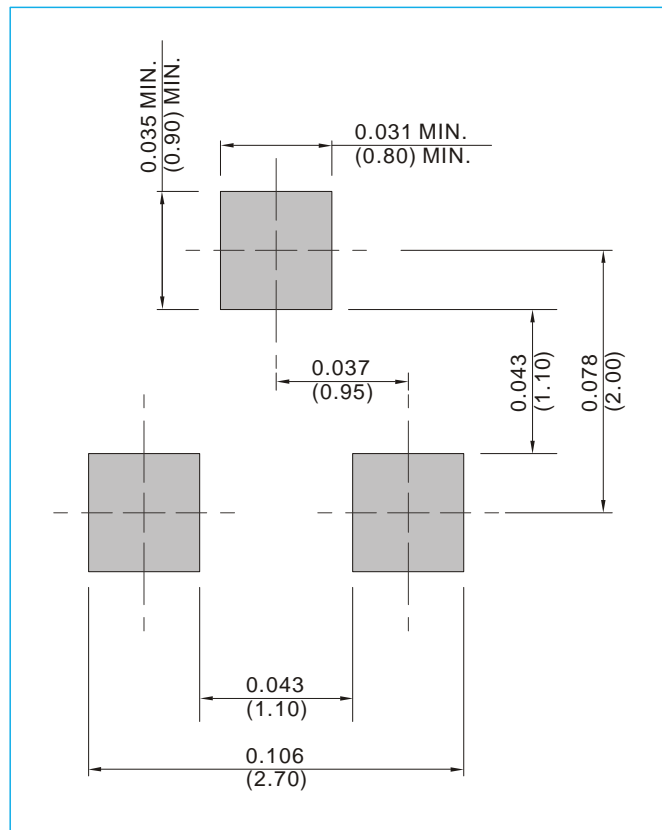


BAT30S

MOUNTING PAD LAYOUT

SOT-23

Unit : inch(mm)



ORDER INFORMATION

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



BAT30S

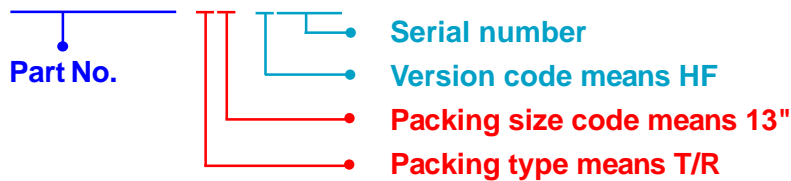
Part No_packing code_Version

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			



BAT30S

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.