

NPN High-Voltage Transistors

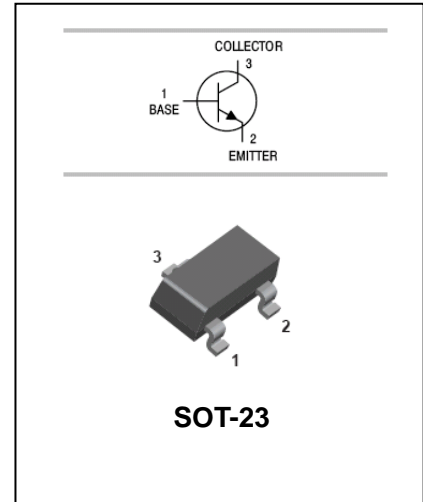
BF820/BF822

FEATURES

- Low current(max.50mA).
- High voltage(max.300V).
- Complements:BF821,BF823.



Lead-free



APPLICATIONS

- Telephony and professional communication equipment.

ORDERING INFORMATION

Type No.	Marking	Package Code
BF820	1V	SOT-23
BF822	1X	SOT-23

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Unit	
V _{CBO}	Collector-Base Voltage	BF820	300	V
		BF822	250	
V _{CEO}	Collector-Emitter Voltage	BF820	300	V
		BF822	250	
V _{EBO}	Emitter-Base Voltage	5	V	
I _C	Collector Current -Continuous	50	mA	
I _B	Base Collector-Peak	100	mA	
P _{tot}	Total Power Dissipation	250	mW	
T _j , T _{stg}	Junction and Storage Temperature	-55 to +150	°C	

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A$ $I_E=0$ BF820 BF822	300 250		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA$ $I_B=0$ BF820 BF822	300 250		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A$ $I_C=0$	5		V
Collector cut-off current	I_{CBO}	$V_{CB}=200V$ $I_E=0$		20	nA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V$ $I_C=0$		50	nA
DC current gain	h_{FE}	$V_{CE}=20V$ $I_C=25mA$	50		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=30mA$ $I_B=5mA$		0.6	V
Transition frequency	f_T	$V_{CE}=10V$, $I_C=10mA$ $f=100MHz$	60		MHz
Feedback capacitance	C_{re}	$V_{CB}=30V$ $I_C=0$ $f=100MHz$		1.6	pF

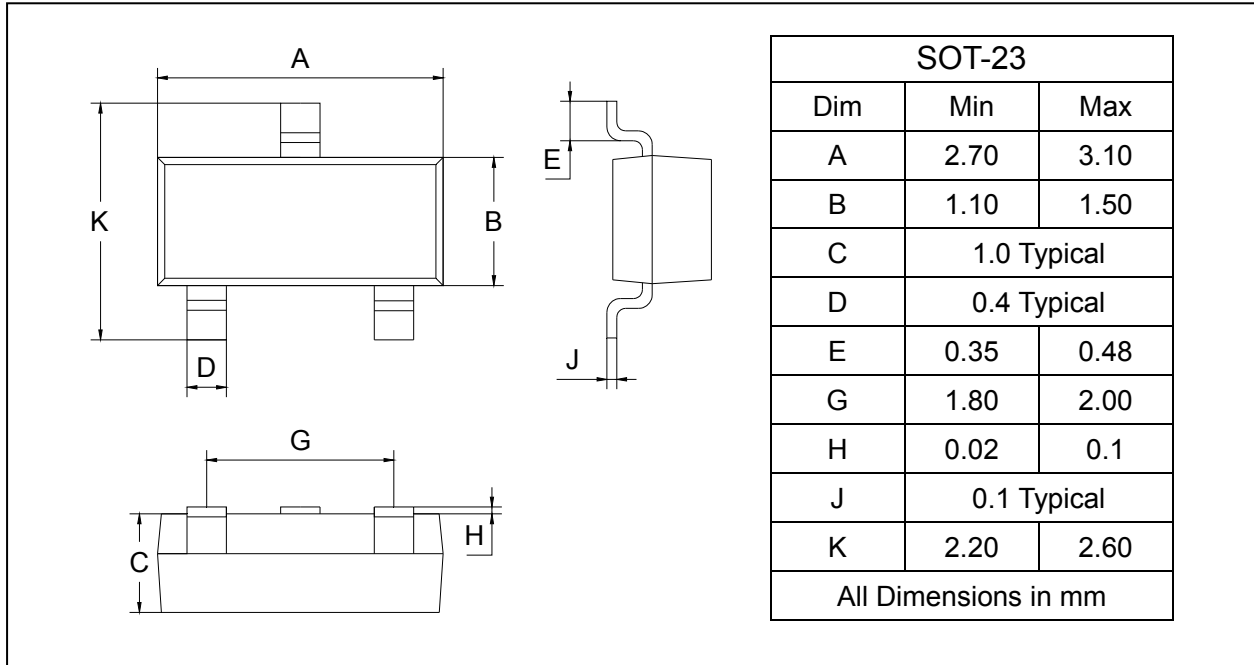
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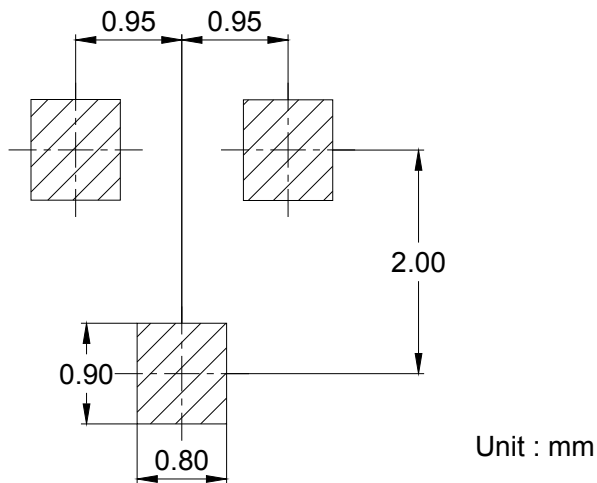
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
BF820/822	SOT-23	3000/Tape&Reel