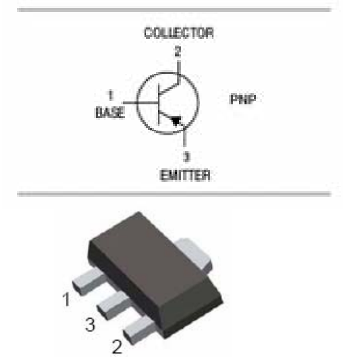
PNP Epitaxial Planar Silicon Transistors 2SB1261

FEATURES

- High h_{FE} h_{FE}=100 to 400.
- Low $V_{CE(sat0}$ $V_{CE(sat)}$≤0.3V.

Lead-free



SOT-89

ORDERING INFORMATION

Type No.	Marking	Package Code
2SB1261	1261	SOT-89

MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	**Parameter**	**Value**	**Units**
V_{CBO}	Collector-Base Volage	-60	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-7	V
I_C	Collector Current	-3	A
I_{CP}	Collector Power Dissipation	-5	A
I_B	Base current	-0.5	A
P_C	Collector Power Dissipation	0.5 2 $*_1$	W
T_j ,T_{stg}	Junction and Storage temperature range	-55 to +150	℃

***1:** When mountef on a 40*40*0.7mm ceramic board.

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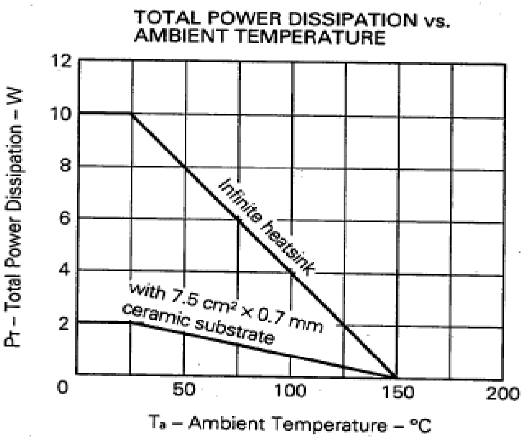
ELECTRICAL CHARACTERISTICS@ Ta=25℃ unless otherwise specified

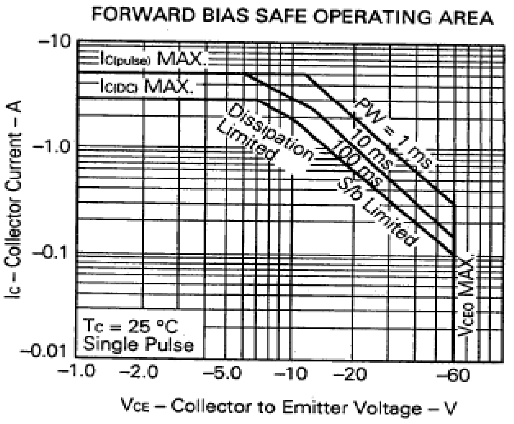
Parameter	**Symbol**	**Test conditions**	**MIN**	**TYP**	**MAX**	**UNIT**
Collector-base breakdown voltage	V_{CBO}	I_C=-10uA,I_E=0	-60			V
Collector-emitter breakdown voltage	V_{CEO}	I_C=-1mA,I_B=0	-60			V
Emitter-base breakdown voltage	V_{EBO}	I_E=-10uA,I_C=0	-7			V
Collector cut-off current	I_{CBO}	V_{CB}=-60V,I_E=0			-10	uA
Emitter cut-off current	I_{EBO}	V_{EBO}=-7V,I_C=0			-10	uA
DC current gain	h_{FE}	V_{CE}=-2V,I_C=-0.2A V_{CE}=-2V,I_C=-0.6A V_{CE}=-2V,I_C=-2.0A	60 100 50		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-1.5A ,I_B=-0.15A		-0.2	-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-1.5A ,I_B=-0.15A		-0.94	-1.2	V
Transition frequency	f_T	V_{CE}=-5V,I_E=-1.5A		50		MHz
Collector output capacitance	C_{ob}	V_{CB}=-10V,f=1MHz		40		pF
Turn-on Time	t_{on}	I_C=-1A,V_{CC}=-10V R_L=10Ω, I_{B1}=-I_{B2}=-0.1A		0.15	0.5	us
Storage Time	t_{stg}			0.5	2.0	us
Fall Time	t_f			0.1	0.5	us

CLASSIFICATION OF h_{FE}

Rank	M	L	K
Range	100-200	160-320	200-400

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified





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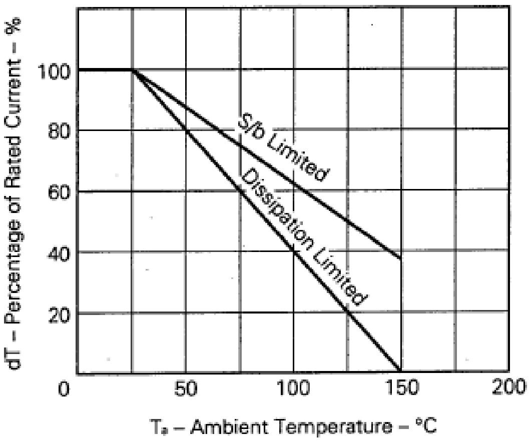
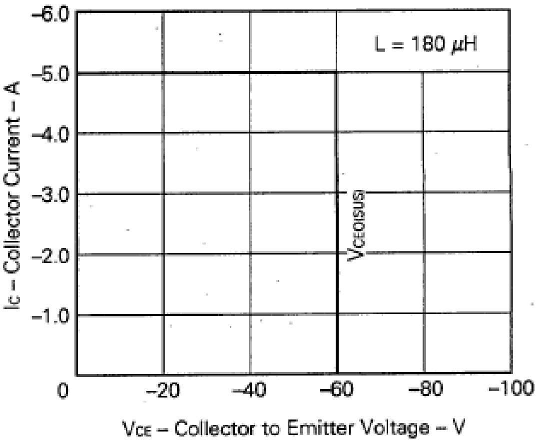
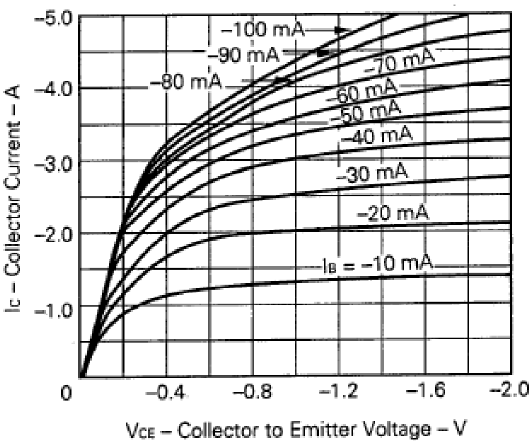
DERATING CURVE OF SAFE OPERATING AREA



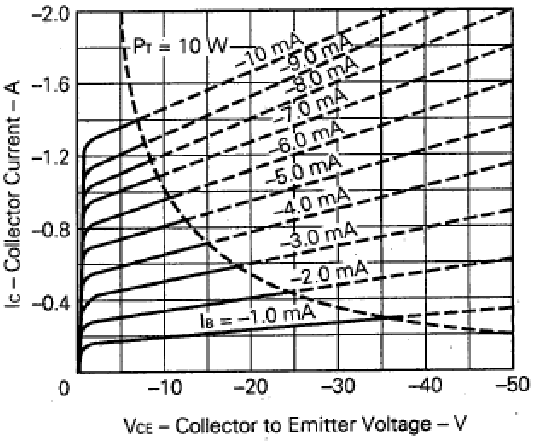
RESERVE BIAS SAFE OPERAING AREA



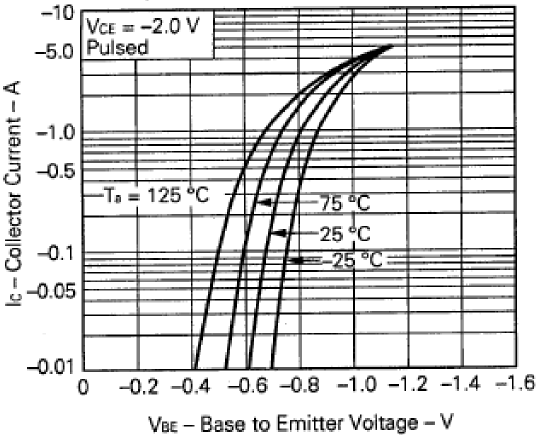
COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



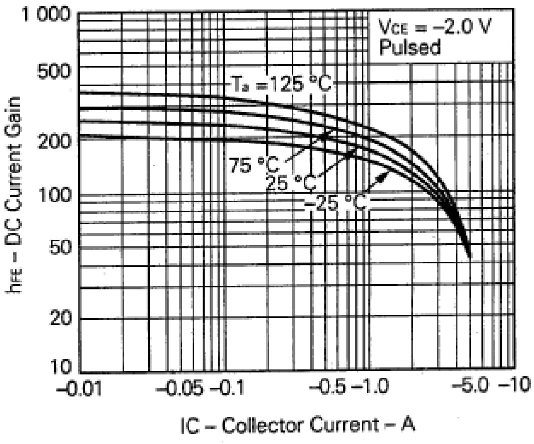
COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



COLLECTOR CURRENT vs. BASE TO EMITTER VOLTAGE



DC CURRENT GAIN vs. COLLECTOR CURRENT



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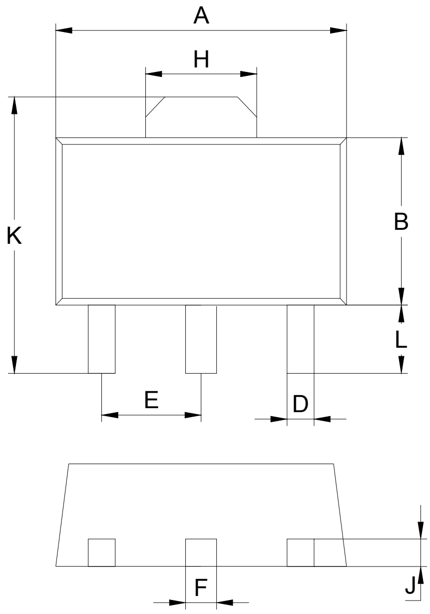
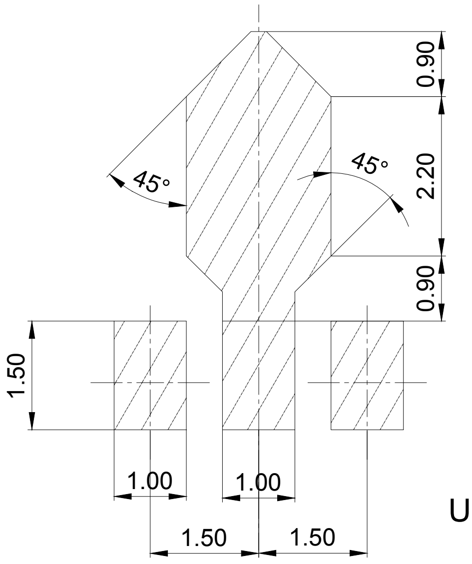
PACKAGE OUTLINE

Plastic surface mounted package SOT-89



SOT-89		
Dim	Min	Max
A	4.30	4.70
B	2.25	2.65
C	1.50 Typical	
D	0.40 Typical	
E	1.40	1.60
F	0.48 Typical	
H	1.60	1.80
J	0.40 Typical	
L	0.90	1.10
K	3.95	4.35
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit:mm

PACKAGE INFORMATION

Device	Package	Shipping
2SB1261	SOT-89	1000/Tape&Reel