

**Silicon PNP Power Transistor**

**2SB1290**

**DESCRIPTION**

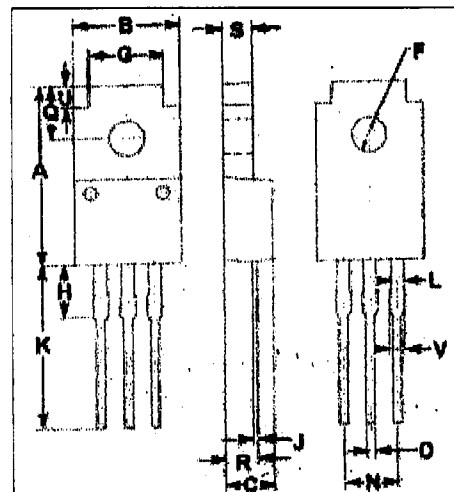
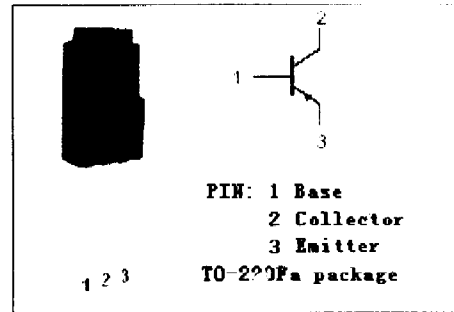
- High Collector Current:  $I_C = -7A$
- Low Collector Saturation Voltage  
 $V_{CE(sat)} = -1.0V(\text{Max})@I_C = -4A$
- Wide Area of Safe Operation
- Complement to Type 2SD1833

**APPLICATIONS**

- Designed for low frequency power amplifier applications.

**ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ C$ )**

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-80	V
$V_{CEO}$	Collector-Emitter Voltage	-80	V
$V_{EBV}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current-Continuous	-7	A
$I_{CM}$	Collector Current-Peak	-10	A
$P_C$	Total Power Dissipation @ $T_a=25^\circ C$	2	W
	Total Power Dissipation @ $T_c=25^\circ C$	30	
$T_j$	Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ C$



DIM	mm	
	MIN	MAX
A	16.85	17.15
B	9.54	10.10
C	4.35	4.65
D	0.75	0.90
F	3.20	3.40
G	6.90	7.20
H	5.15	5.45
J	0.45	0.75
K	13.35	13.65
L	1.10	1.30
N	4.98	5.18
Q	4.85	5.15
R	2.55	3.25
S	2.70	2.90
U	1.75	2.05
V	1.30	1.50



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## ELECTRICAL CHARACTERISTICS

$T_C=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -1\text{mA}; I_B = 0$	-80			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = -50\mu\text{A}; I_E = 0$	-80			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = -50\mu\text{A}; I_C = 0$	-5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -4\text{A}; I_B = -0.4\text{A}$			-1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -4\text{A}; I_B = -0.4\text{A}$			-1.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = -80\text{V}; I_E = 0$			-10	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -4\text{V}; I_C = 0$			-10	$\mu\text{A}$
$h_{rE}$	DC Current Gain	$I_C = -1\text{A}; V_{CE} = -5\text{V}$	60		320	
$C_{OB}$	Output Capacitance	$I_E = 0; V_{CB} = -10\text{V}; f = 1\text{MHz}$		200		pF
$f_T$	Current-Gain—Bandwidth Product	$I_E = 0.5\text{A}; V_{CE} = -5\text{V}$		12		MHz

### ◆ $h_{FE}$ Classifications

D	E	F
60-120	100-200	160-320