

# isc Silicon PNP Power Transistor

## 2SB1290

### DESCRIPTION

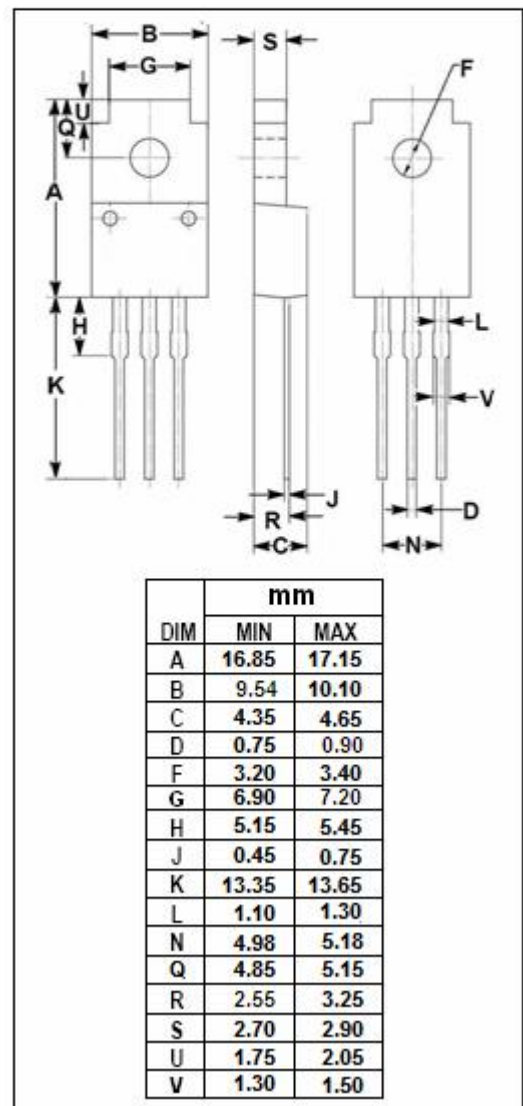
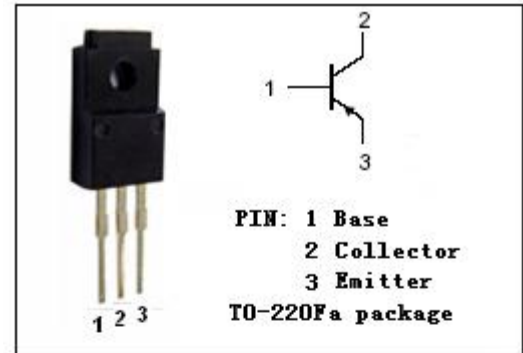
- High Collector Current::  $I_C = -7A$
- Low Collector Saturation Voltage  
:  $V_{CE(sat)} = -1.0V(Max)@I_C = -4A$
- Wide Area of Safe Operation
- Complement to Type 2SD1833
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### 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
$V_{EBO}$	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	$^\circ C$



**isc Silicon PNP Power Transistor****2SB1290****ELECTRICAL CHARACTERISTICS****T<sub>C</sub>=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = -1mA; I <sub>B</sub> = 0	-80			V
V <sub>(BR)CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> = -50 μA; I <sub>E</sub> = 0	-80			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = -50 μA; I <sub>C</sub> = 0	-5			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -4A; I <sub>B</sub> = -0.4A			-1.0	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = -4A; I <sub>B</sub> = -0.4A			-1.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -80V; I <sub>E</sub> = 0			-10	μA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -4V; I <sub>C</sub> = 0			-10	μA
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = -1A; V <sub>CE</sub> = -5V	60		320	
C <sub>OB</sub>	Output Capacitance	I <sub>E</sub> = 0; V <sub>CB</sub> = -10V; f = 1MHz		200		pF
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>E</sub> = 0.5A; V <sub>CE</sub> = -5V		12		MHz

**◆ h<sub>FE</sub> Classifications**

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

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