

isc Silicon PNP Power Transistor

2SB817C

DESCRIPTION

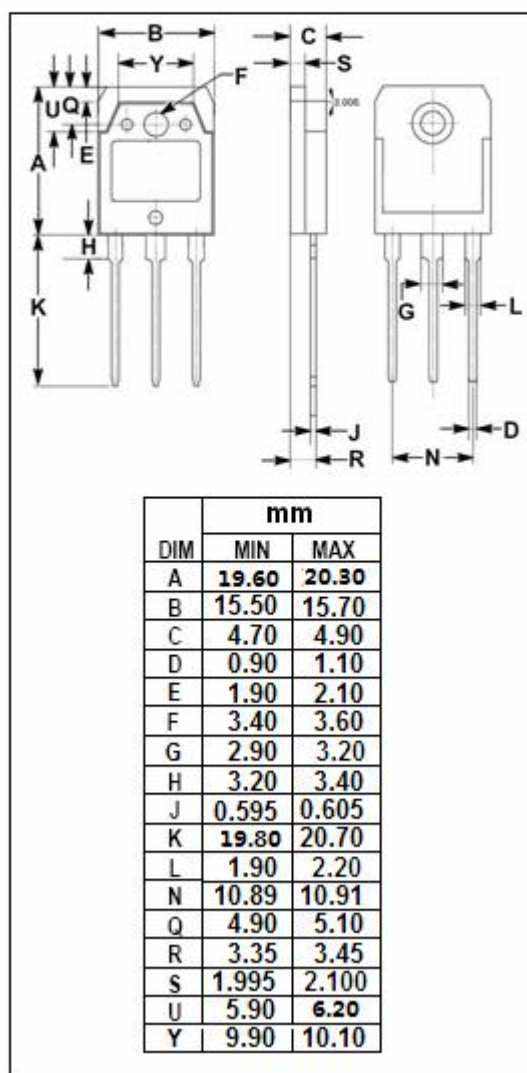
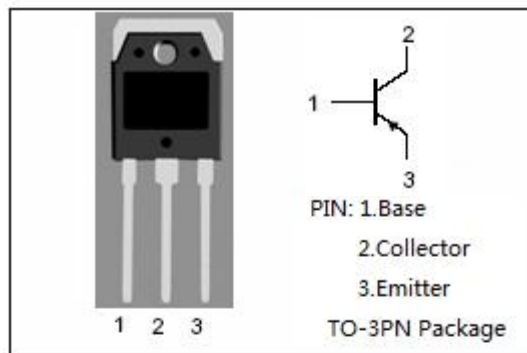
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = -2.0V(\text{Max.}) @ I_C = -5A$
- Good Linearity of h_{FE}
- High Current Capability
- Wide Area of Safe Operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for audio frequency amplifier output stage applications

ABSOLUTE MAXIMUM RATINGS($T_a = 25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-160	V
V_{CEO}	Collector-Emitter Voltage	-140	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current-Continuous	-12	A
I_{CP}	Collector Current-Pulse	-20	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	120	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



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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	$I_C = -30\text{mA}$; $R_{BE} = \infty$	-140			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = -5\text{mA}$; $I_E = 0$	-160			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = -5\text{mA}$; $I_C = 0$	-6			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -5.0\text{A}$; $I_B = -0.5\text{A}$			-2.0	V
$V_{BE(on)}$	Base -Emitter On Voltage	$I_C = -5\text{A}$; $V_{CE} = -5\text{V}$			-1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -160\text{V}$; $I_E = 0$			-100	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -4\text{V}$; $I_C = 0$			-100	μA
h_{FE-1}	DC Current Gain	$I_C = -1\text{A}$; $V_{CE} = -5\text{V}$	100		200	
h_{FE-2}	DC Current Gain	$I_C = -5\text{A}$; $V_{CE} = -5\text{V}$	35			
C_{OB}	Output Capacitance	$I_E = 0$; $V_{CB} = -10\text{V}$; $f_{test} = 1.0\text{MHz}$		280		pF
f_T	Current-Gain—Bandwidth Product	$I_C = -1\text{A}$; $V_{CE} = -5\text{V}$		10		MHz

Switching times

t_{on}	Turn-on Time	$I_C = -10\text{A}$, $R_L = 10\Omega$, $I_{B1} = -I_{B2} = -5\text{A}$, $V_{CC} = -50\text{V}$		0.45		μs
t_{stg}	Storage Time			1.75		μs
t_f	Fall Time			0.25		μs

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