

isc Silicon NPN Power Transistor

2SD1857

DESCRIPTION

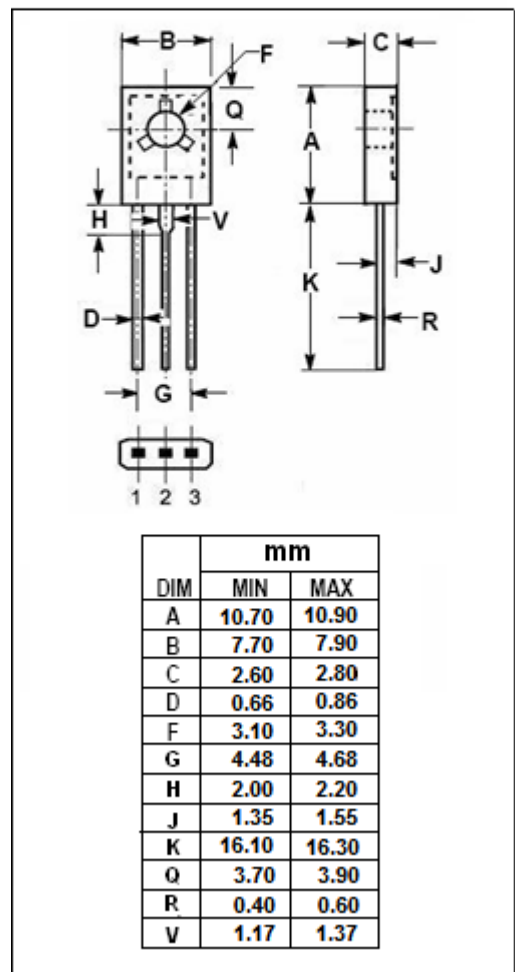
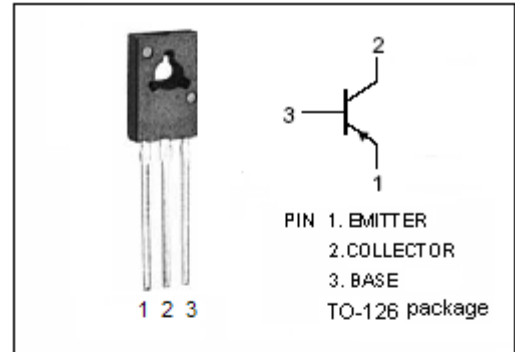
- High breakdown voltage. ($BV_{CEO} = 120V$)
- Low collector output capacitance.
- High transition frequency. ($f_T = 50MHz$)
- Complement to Type 2SB1236

APPLICATIONS

- Designed for audio amplifier, voltage regulator, and general purpose power amplifiers.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	120	V
V_{CEO}	Collector-Emitter Voltage	120	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	1.5	A
I_{CP}	Collector Current-Pulse	3	A
P_C	Collector Power Dissipation	10	W
T_J	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}C$



isc Silicon NPN Power Transistor**2SD1857****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -1\text{A}; I_B = -0.1\text{A}$			2	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -1\text{A}; I_B = -0.1\text{A}$			1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -100\text{V}; I_E = 0$			1.0	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -4\text{V}; I_C = 0$			1.0	μA
h_{FE-1}	DC Current Gain	$I_C = -0.1\text{A}; V_{CE} = -5\text{V}$	120		390	
f_T	Current-Gain—Bandwidth Product	$I_C = -0.1\text{A}; V_{CE} = -5\text{V}$		50		MHz
C_{OB}	Output Capacitance	$I_E = 0; V_{CB} = -10\text{V}, f_{test} = 1\text{MHz}$		30		pF