

isc Silicon NPN Power Transistor

2SD1380

DESCRIPTION

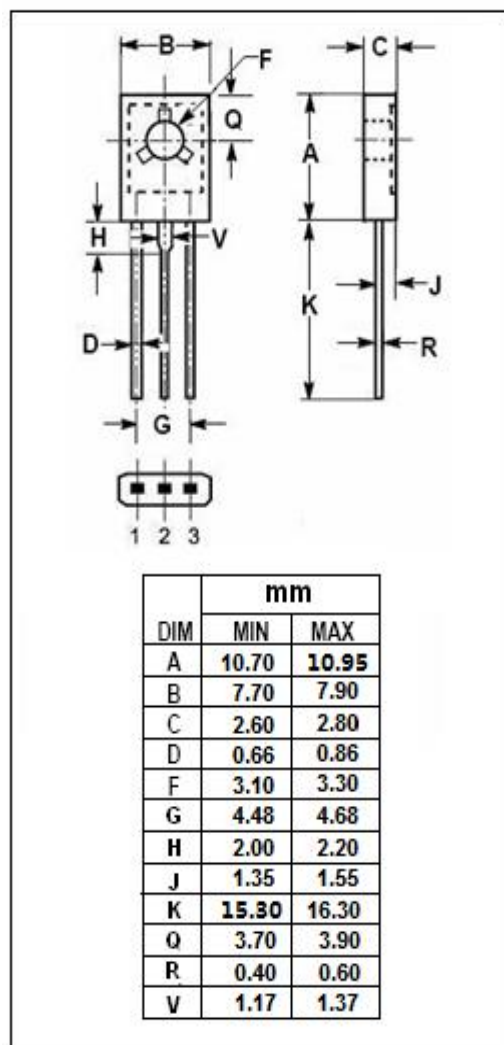
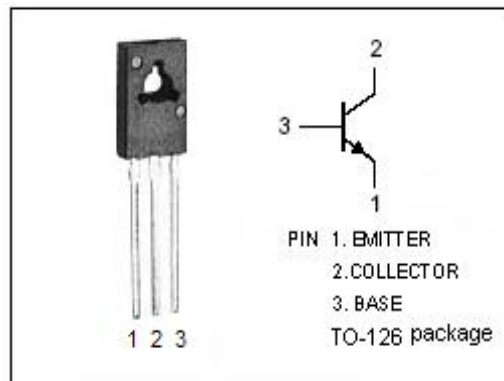
- High Collector Current $-I_C = 2A$
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 32V(\text{Min})$
- Good Linearity of h_{FE}
- Low Saturation Voltage
- Complement to Type 2SB1009
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for low frequency power amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	32	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	2	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	10	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



isc Silicon NPN Power Transistor**2SD1380****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 50 μA; I _E = 0	40			V
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 1mA; I _B = 0	32			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 50 μA; I _C = 0	5			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 2A; I _B = 0.2A			0.8	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 20V; I _E = 0			1	μA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 4V; I _C = 0			1	μA
h _{FE}	DC Current Gain	I _C = 0.5A; V _{CE} = 3V	82		390	
f _T	Current-Gain—Bandwidth Product	I _E = -0.5A; V _{CE} = 5V		100		MHz
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V, f _{test} = 1MHz		30		pF

◆ h_{FE} Classifications

P	Q	R
82-180	120-270	180-390

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