

isc Silicon NPN Power Transistor
2SD2033
DESCRIPTION

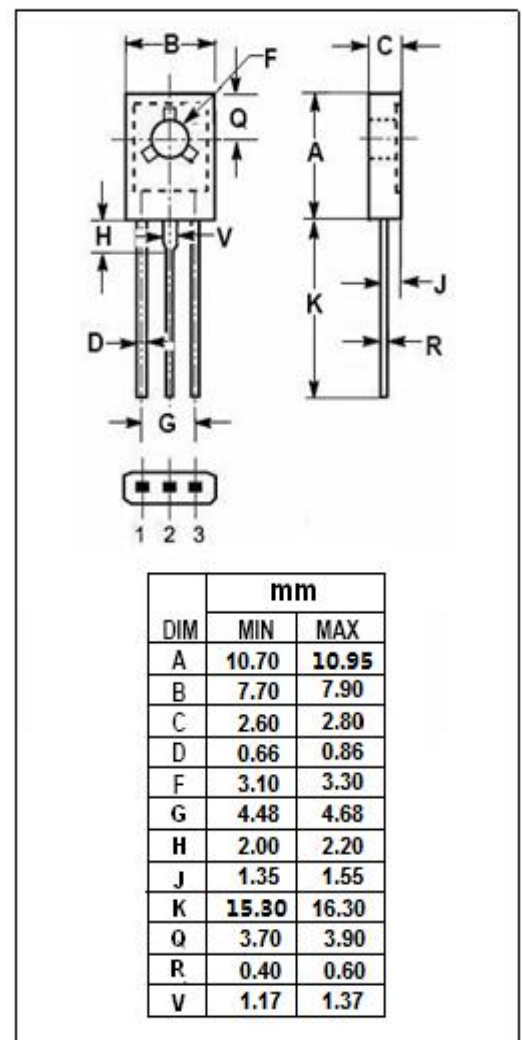
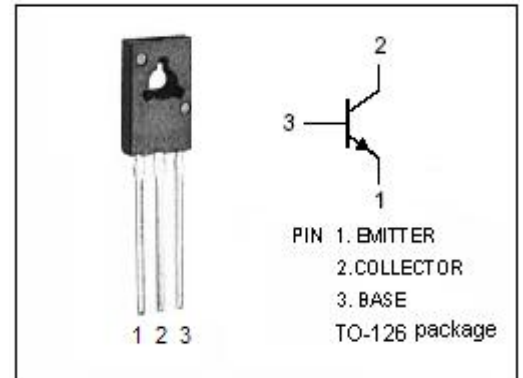
- Good Linearity of h_{FE}
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 120V(\text{Min})$
- Complement to Type 2SB1353
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in high voltage driver applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	120	V
V_{CEO}	Collector-Emitter Voltage	120	V
V_{EBO}	Emitter-Base Voltage	5.0	V
I_C	Collector Current-Continuous	1.5	A
P_C	Collector Power Dissipation @ $T_a = 25^\circ\text{C}$	1.8	W
	Collector Power Dissipation @ $T_c = 25^\circ\text{C}$	15	
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°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 0.1mA; I _E = 0	120			V
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 10mA; I _B = 0	120			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 0.1mA; I _C = 0	5			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 1A; I _B = 0.1A			2.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 120V; I _E = 0			10	μA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C =0			10	μA
h _{FE}	DC Current Gain	I _C = 0.1A; V _{CE} = 5V	60		320	
f _T	Current-Gain—Bandwidth Product	I _C = 0.1A; V _{CE} = 5V		50		MHz

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