

isc Silicon NPN Power Transistor

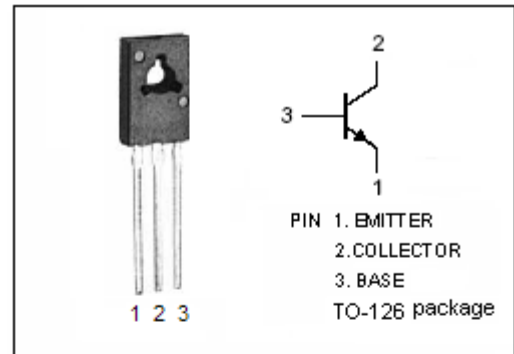
2SD2033

DESCRIPTION

- Good Linearity of h_{FE}
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 120V(\text{Min})$
- Complement to Type 2SB1353

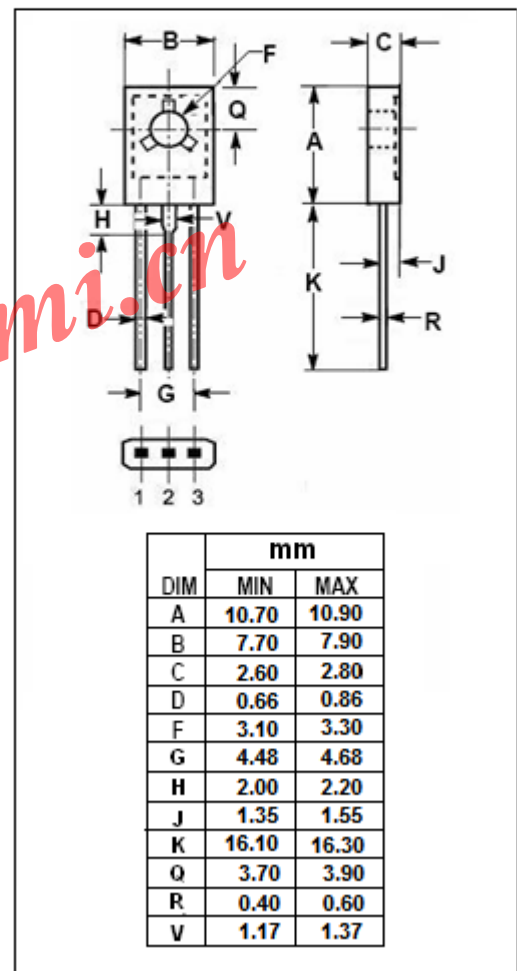
APPLICATIONS

- 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 @ $T_c=25^\circ\text{C}$	20	
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
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C=0.1\text{mA}; I_E=0$	120			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=10\text{mA}; I_B=0$	120			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=0.1\text{mA}; I_C=0$	5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=1\text{A}; I_B=0.1\text{A}$			2.0	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=120\text{V}; I_E=0$			10	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=5\text{V}; I_C=0$			10	μA
h_{FE}	DC Current Gain	$I_C=0.1\text{A}; V_{CE}=5\text{V}$	60		320	
f_T	Current-Gain—Bandwidth Product	$I_C=0.1\text{A}; V_{CE}=5\text{V}$		50		MHz

◆ h_{FE} Classifications

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