

isc Silicon NPN Power Transistors**2SD180****DESCRIPTION**

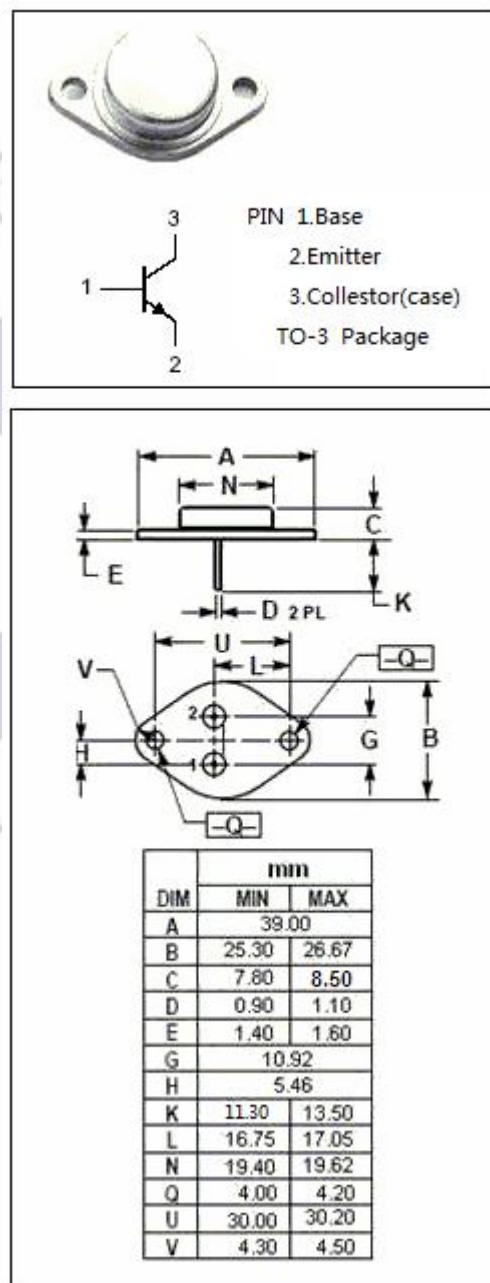
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 70V(\text{Min.})$
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = 1.5V(\text{Max.}) @ I_C = 5A$
- Good Linearity of h_{FE}

APPLICATIONS

- Audio frequency power amplifier and low speed switching
- Suitable for output stages of 30 ~35 watts audio amplifier and DC-DC converter.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	70	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	6	A
I_{CM}	Collector Current-Peak	10	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	60	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65~+150	$^\circ\text{C}$



isc Silicon NPN Power Transistors**2SD180****ELECTRICAL CHARACTERISTICS**T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 5A; I _B = 0.5A			1.5	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 5A; I _B = 0.5A			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 70V; I _E = 0			0.1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			0.5	mA
h _{FE}	DC Current Gain	I _C = 3A; V _{CE} =2V	30		180	
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V; f= 1MHz		150		pF
f _T	Current-Gain—Bandwidth Product	I _C = 0.2A; V _{CE} = 10V		10		MHz