

isc Silicon NPN Power Transistors

2SD180

DESCRIPTION

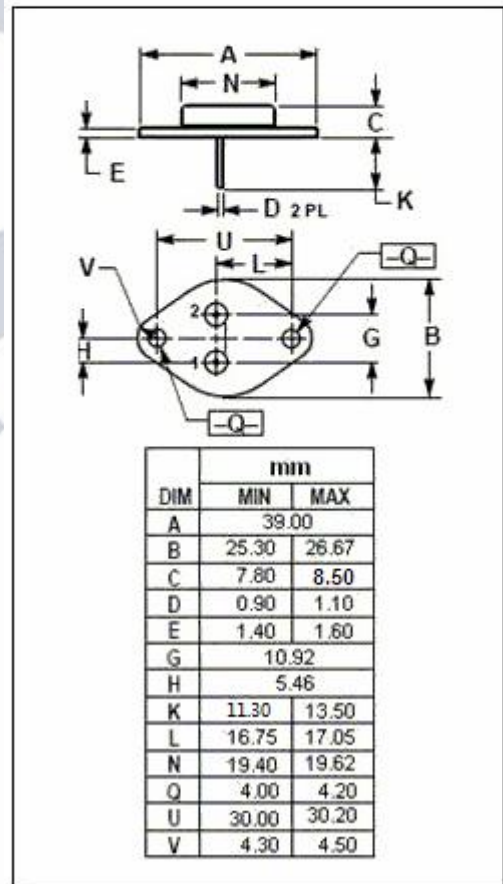
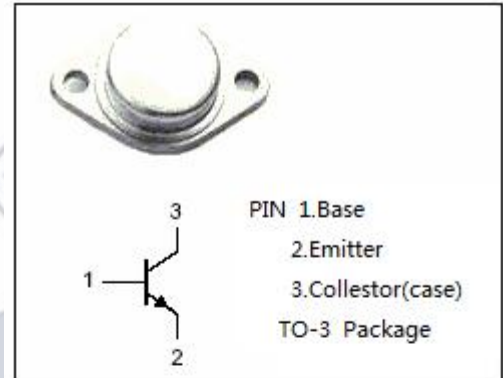
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 70V(\text{Min.})$
- Low Collector Saturation Voltage-  
:  $V_{CE(sat)} = 1.5V(\text{Max.}) @ I_c = 5A$
- Good Linearity of  $h_{FE}$

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( $T_a=25^\circ C$ )

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 @ $T_c=25^\circ C$	60	W
$T_J$	Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature	-65~+150	$^\circ C$



**isc Silicon NPN Power Transistors****2SD180****ELECTRICAL CHARACTERISTICS**T<sub>j</sub>=25°C unless otherwise specified

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