

isc Silicon PNP Power Transistors

ISC180

DESCRIPTION

- Excellent Safe Operating Area
- DC Current Gain-
: $h_{FE}=25-100@I_C = -7.5A$
- Collector-Emitter Saturation Voltage
: $V_{CE(sat)} = -0.8V(Max)@ I_C = -7.5A$
- Complement to Type ISC181
- Minimum Lot-to-Lot variations for robust device performance and reliable operation.

APPLICATIONS

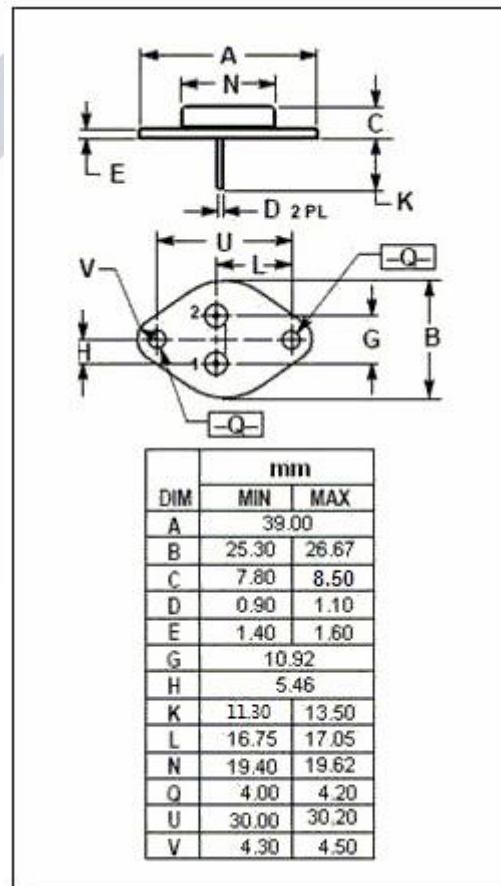
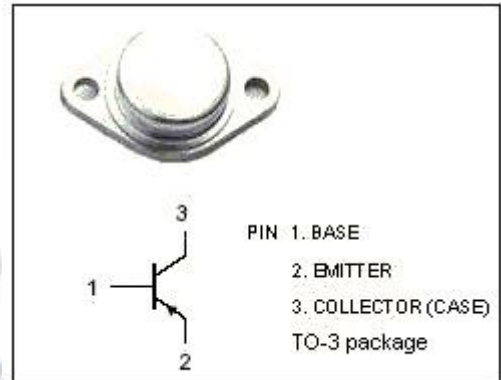
- Designed for general-purpose switching and amplifier applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-100	V
V_{CEO}	Collector-Emitter Voltage	-90	V
V_{EBO}	Emitter-Base Voltage	-4	V
I_C	Collector Current-Continuous	-30	A
I_B	Base Current	-7.5	A
P_C	Collector Power Dissipation @ $T_C=25^{\circ}C$	200	W
T_J	Junction Temperature	200	$^{\circ}C$
T_{stg}	Storage Temperature	-55~200	$^{\circ}C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R_{th-j-c}	Thermal Resistance, Junction to Case	0.875	$^{\circ}C/W$



isc Silicon PNP Power Transistors**ISC180****ELECTRICAL CHARACTERISTICS**T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CEO(SUS)} *	Collector-Emitter Sustaining Voltage	I _C = -50mA ; I _B = 0	-90		V
V _{CE(sat)-1} *	Collector-Emitter Saturation Voltage	I _C = -7.5A; I _B = -0.75A		-0.8	V
V _{BE(sat)-2} *	Collector-Emitter Saturation Voltage	I _C = -7.5A; I _B = -0.75A		-1.3	V
V _{BE(on)} *	Base-Emitter On Voltage	I _C = -7.5A ; V _{CE} = -2V		-1.3	V
I _{CBO}	Collector Cutoff Current	V _{CB} = -100V; I _E = 0		-100	uA
I _{CEO}	Collector Cutoff Current	V _{CE} = -90V; I _B = 0		-1.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = -4.0V; I _C =0		-100	uA
h _{FE-1} *	DC Current Gain	I _C = -7.5 A; V _{CE} = -2V	25	100	
f _T	Current Gain-Bandwidth Product	I _C = -0.5A ; V _{CE} = -10V; f _{test} = 1.0MHz	3		MHz

*:Pulse test: Pulse width≤300us,duty cycle≤1.5%