

Silicon NPN Power Transistor
2N6058
DESCRIPTION

- Built-in Base-Emitter Shunt Resistors
- High DC current gain-
 $h_{FE} = 750$ (Min) @ $I_C = 6A$
- Collector-Emitter Sustaining Voltage-
 $V_{CEO(SUS)} = 80V$ (Min)
- Complement to type 2N6051

APPLICATIONS

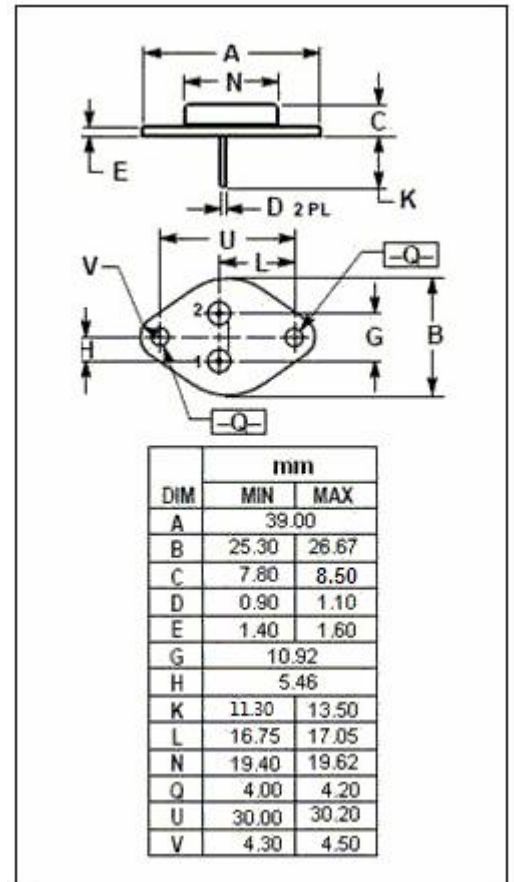
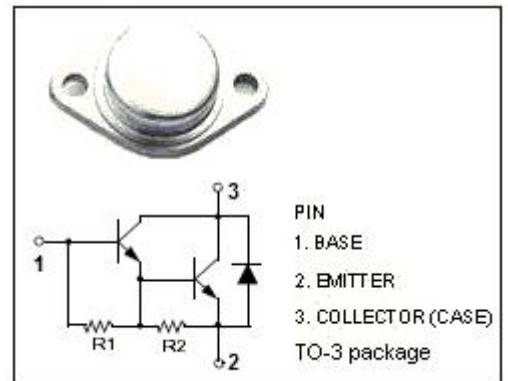
- Designed for general purpose amplifier and low frequency switching applications.

ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	12	A
I_{CM}	Collector Current-Peak	20	A
I_B	Base Current	0.2	A
P_C	Collector Power Dissipation@ $T_C=25^\circ C$	150	W
T_J	Junction Temperature	150	°C
T_{stg}	Storage Temperature	-65~150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	1.17	°C/W



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ELECTRICAL CHARACTERISTICS (T_C=25°C unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CEQ(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 50mA ; I _B = 0	80	-	V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = 6A; I _B = 24mA	-	2.0	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = 12A; I _B = 120mA	-	3.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 12A; I _B = 120mA	-	4.0	V
V _{BE(on)}	Base-Emitter On voltage	I _C = 6A ; V _{CE} = 3V	-	2.8	V
I _{CEO}	Collector Cutoff current	V _{CE} = 40V; I _B = 0	-	1.0	mA
I _{CEX}	Collector Cutoff current	V _{CE} = 80V; V _{BE(off)} = -1.5V V _{CE} = 80V; V _{BE(off)} = -1.5V, T _C =150°C	-	0.5 5.0	mA
I _{EBO}	Emitter Cut-off current	V _{EB} = 5V; I _C = 0	-	2.0	mA
h _{FE-1}	DC Current Gain	I _C = 6A ; V _{CE} = 3V	750	18000	
h _{FE-2}	DC Current Gain	I _C = 12A ; V _{CE} = 3V	100	-	
C _{OB}	Output Capacitance	I _E =0 ; V _{CB} = 10V; f _{test} = 0.1MHz	-	300	pF

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