

isc Silicon NPN Darlington Power Transistor
2SD1597
DESCRIPTION

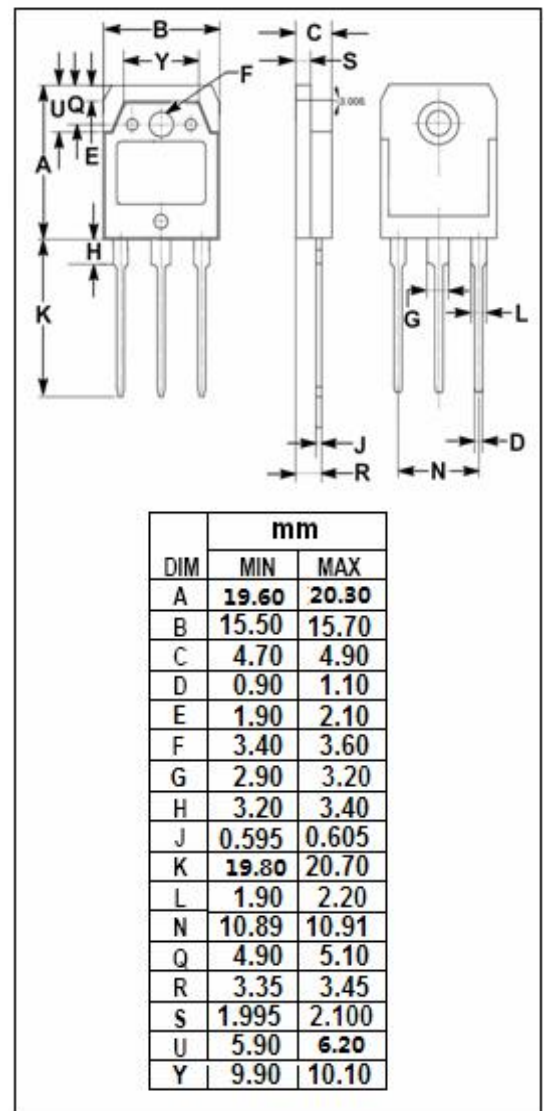
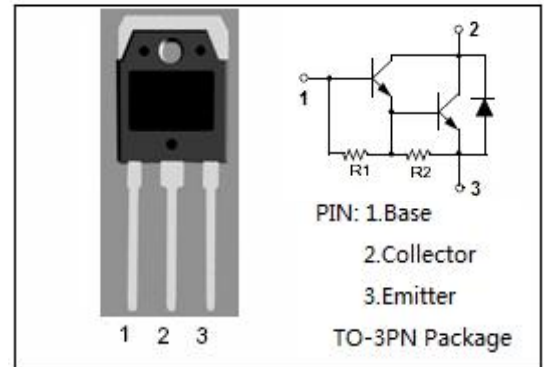
- Collector Current - $I_C = 30A$
- High DC Current Gain-
: $h_{FE} = 1000(\text{Min}) @ I_C = 15A$
- Low Collector Saturation Voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for audio frequency power amplifier and low speed high current switching industrial use.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	120	V
V_{CEO}	Collector-Emitter Voltage	120	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	30	A
I_B	Base Current-Continuous	1.5	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ C$	80	W
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$



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ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=25\text{mA}; I_B=0$	120			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=5\text{mA}; I_C=0$	7			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=30\text{A}; I_B=0.1\text{A}$			2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=30\text{A}; I_B=0.1\text{A}$			2.5	V
I_{CEO}	Collector Cutoff Current	$V_{CE}=60\text{V}; I_B=0$			1.0	mA
I_{CBO}	Collector Cutoff Current	$V_{CB}=120\text{V}; I_E=0$			10	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=7\text{V}; I_C=0$			5	mA
h_{FE}	DC Current Gain	$I_C=15\text{A}; V_{CE}=2\text{V}$	1000			

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