

**isc Silicon NPN Darlington Power Transistor**

**2SD1597**

**DESCRIPTION**

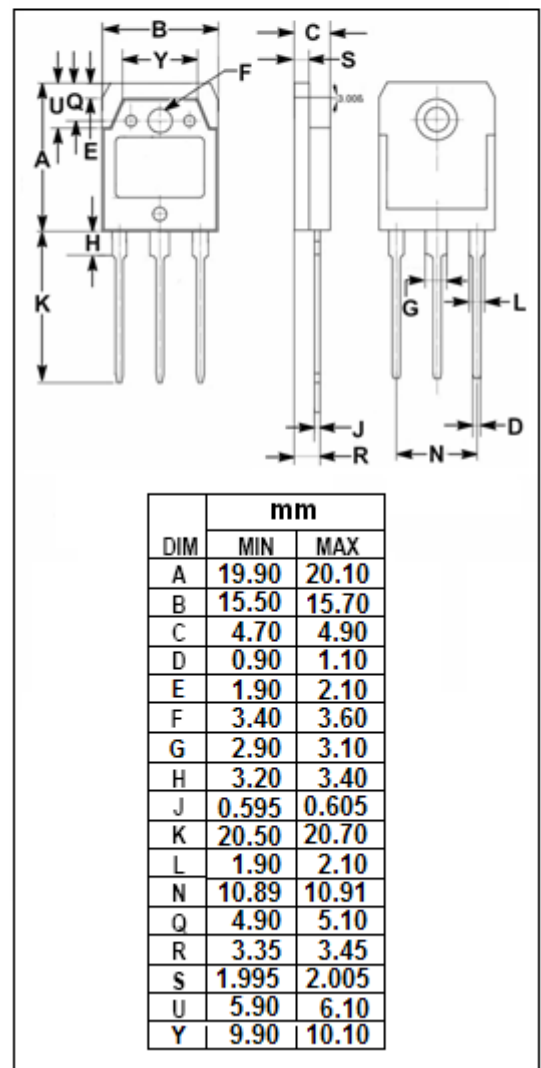
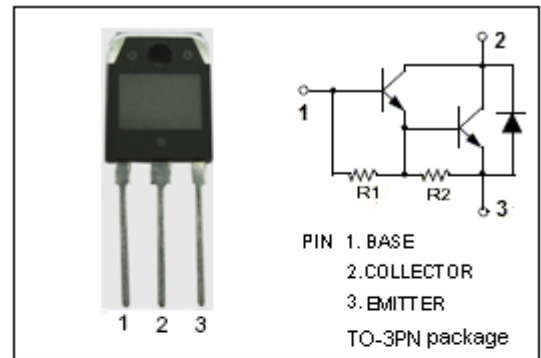
- Collector Current  $-I_C = 30A$
- High DC Current Gain-  
:  $h_{FE} = 1000(\text{Min}) @ I_C = 15A$
- Low Collector Saturation Voltage

**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	$^\circ C$



**isc Silicon NPN Darlington Power Transistor****2SD1597****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	$\mu\text{A}$
$I_{EBO}$	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			