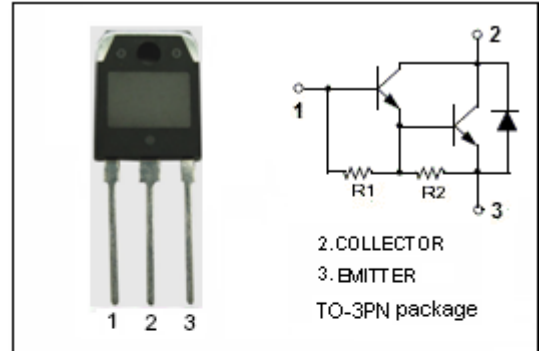


isc Silicon NPN Darlington Power Transistor

2SD1044

DESCRIPTION

- High DC Current Gain
: $h_{FE} = 700(\text{Min.}) @ I_C = 1A, V_{CE} = 4V$
- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)_{CEO}} = 80V(\text{Min})$
- Wide Area of Safe Operation

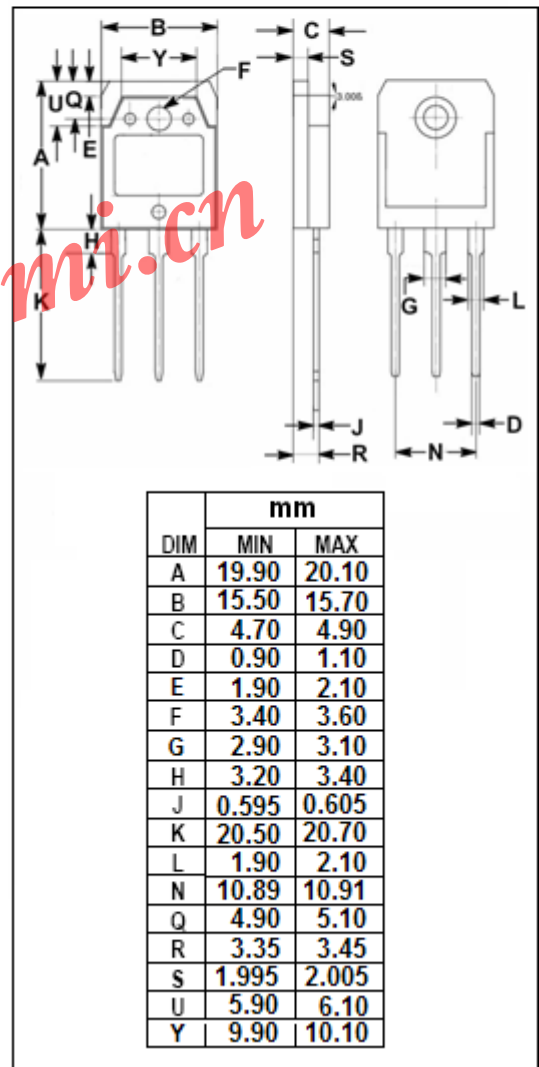


APPLICATIONS

- Designed for high power amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	100	V
V_{CER}	Collector-Emitter Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	6	A
I_B	Base Current- Continuous	3	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ C$	60	W
T_j	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$



isc Silicon NPN Darlington Power Transistor**2SD1044****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V_{CER}	Collector-Emitter Breakdown Voltage	$I_C=50\text{mA}$, $R_{BE}=1\text{k}\Omega$	100			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=50\text{mA}$, $I_B=0$	80			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=3\text{A}$, $I_B=30\text{mA}$			1.7	V
I_{CBO}	Collector Cutoff current	$V_{CB}=100\text{V}$, $I_E=0$			10	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=6\text{V}$; $I_C=0$			10	mA
h_{FE}	DC Current Gain	$I_C=1\text{A}$; $V_{CE}=4\text{V}$	700		10000	

◆ **h_{FE} classifications**

Q	P	O
700-2500	2000-5000	4000-10000