

isc Silicon NPN Darlington Power Transistor

2SD1457

DESCRIPTION

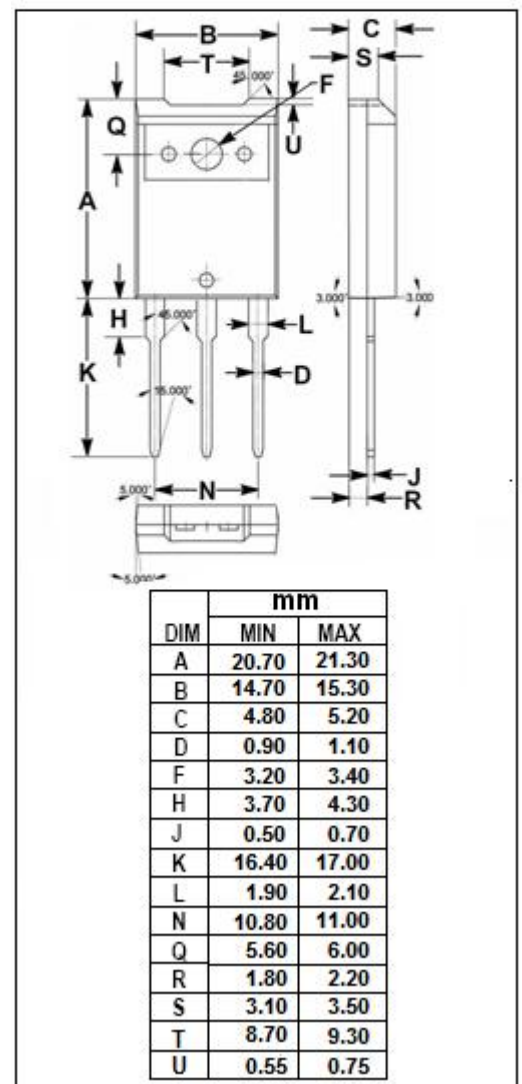
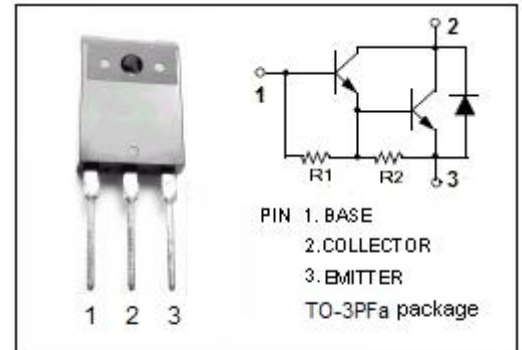
- High DC Current Gain
: $h_{FE} = 700(\text{Min.}) @ I_C = 2A, V_{CE} = 2V$
- High Collector-Emitter Sustaining Voltage-
: $V_{CEO(\text{SUS})} = 150V(\text{Min})$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for power amplification.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	200	V
V_{CEO}	Collector-Emitter Voltage	150	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	6	A
I_{CM}	Collector Current-Peak	10	A
P_C	Collector Power Dissipation @ $T_a = 25^\circ\text{C}$	3	W
	Collector Power Dissipation @ $T_c = 25^\circ\text{C}$	60	
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



isc Silicon NPN Darlington Power Transistor**2SD1457****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 50mA, L= 10mH	150			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 5mA, I _C = 0	5			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 3A, I _B = 60mA			1.5	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 3A, I _B = 60mA			2.5	V
I _{CBO}	Collector Cutoff current	V _{CB} = 200V, I _E = 0			0.1	mA
h _{FE}	DC Current Gain	I _C = 2A ; V _{CE} = 2V	700		10000	
f _T	Current-Gain—Bandwidth Product	I _C = 0.5A ; V _{CE} = 10V		15		MHz

◆ **h_{FE} Classifications**

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

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