

isc Silicon NPN Darlington Power Transistor

2SD2490

DESCRIPTION

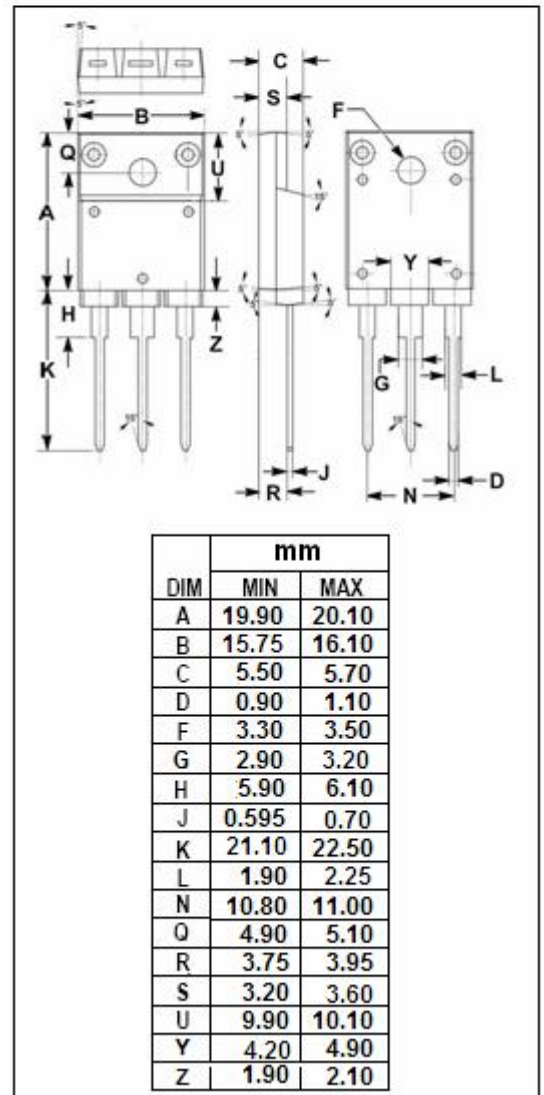
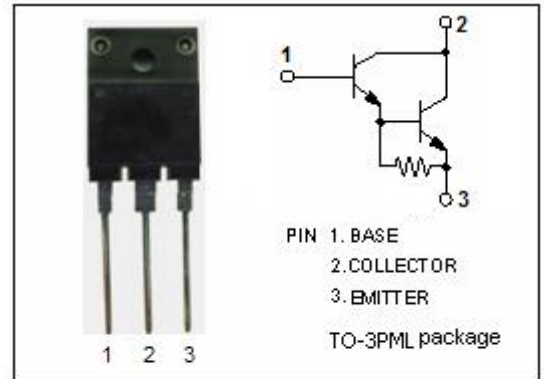
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 200V(\text{Min})$
- High DC current gain
: $h_{FE} = 1000(\text{Min}) @ I_C = 1A$
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = 1.5V(\text{Max.}) @ I_C = 1A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Audio ,regulator and general purpose

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	200	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	15	A
I_B	Base Current-Continuous	1	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	85	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



isc Silicon NPN Darlington Power Transistor**2SD2490****CHARACTERISTICS****T_j=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =30mA ; I _B =0	200			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =10A ; I _B =10mA			2.5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =10A ; I _B =10mA			3.0	V
I _{CBO}	Collector cut-off current	V _{CB} =200V I _E =0			100	μ A
I _{EBO}	Emitter cut-off current	V _{EB} =5V ; I _C =0			100	μ A
h _{FE}	DC current gain	I _C =10A ; V _{CE} =4V	5000		30000	
C _{ob}	Output capacitance	I _E =0 ; V _{CB} =10V ; f=1MHz		120		pF
f _T	Transition frequency	I _E =-2A ; V _{CE} =12V		70		MHz

◆ h_{FE} Classifications

O	P	Y
5000-12000	6500-20000	15000-30000

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