

isc Silicon NPN Power Transistor

2SD2148

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 700V$ (Min)
- High Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

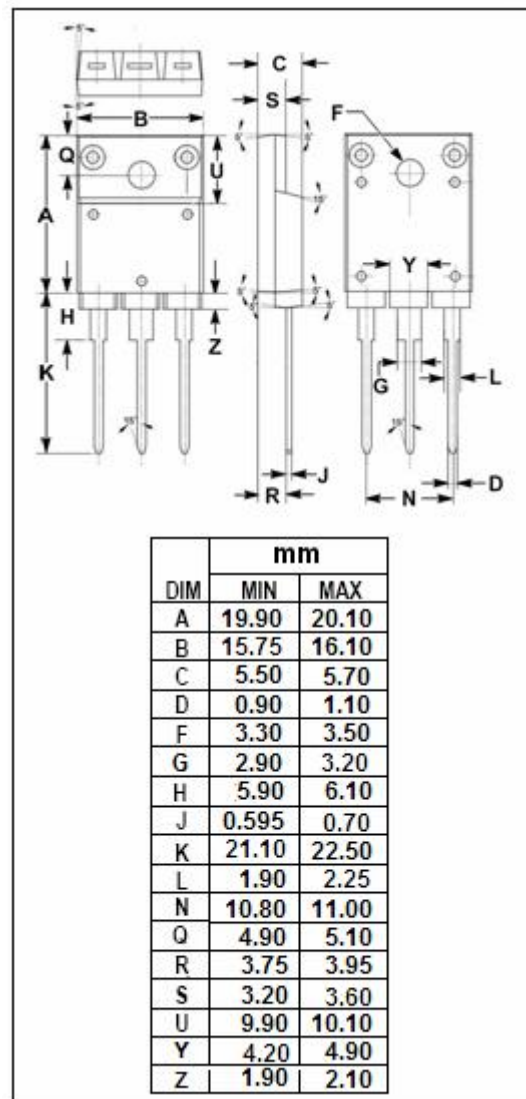
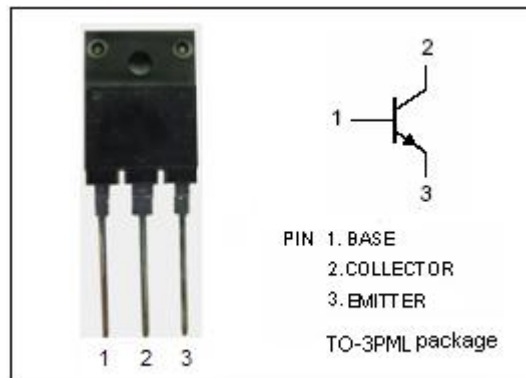
APPLICATIONS

- Designed for use in horizontal deflection circuits of color TV receivers.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1500	V
V_{CEO}	Collector-Emitter Voltage	700	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current- Continuous	8	A
I_{CM}	Collector Current-Peak	12	A
I_B	Base Current- Continuous	4	A
I_{BM}	Base Current-Peak	6	A
P_C	Collector Power Dissipation @ $T_c=25^{\circ}C$	50	W
T_J	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-65~150	$^{\circ}C$

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	2.5	$^{\circ}C/W$



isc Silicon NPN Power Transistor**2SD2148****ELECTRICAL CHARACTERISTICS****T_c=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 10mA ; I _B = 0	700			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 4.5A; I _B = 2.0A			1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 4.5A; I _B = 2.0A			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 1500V; I _E = 0			1.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5.0V ; I _C = 0			10	mA
h _{FE-1}	DC Current Gain	I _C = 0.1A ; V _{CE} = 5V	6		30	
h _{FE-2}	DC Current Gain	I _C = 4.5A ; V _{CE} = 5V	2.25			
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V; f _{test} = 0.1MHz		125		pF
f _T	Current-Gain—Bandwidth Product	I _C = 0.1A; V _{CE} = 5V; f _{test} = 1.0MHz		7		MHz

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