

isc Silicon NPN Power Transistor

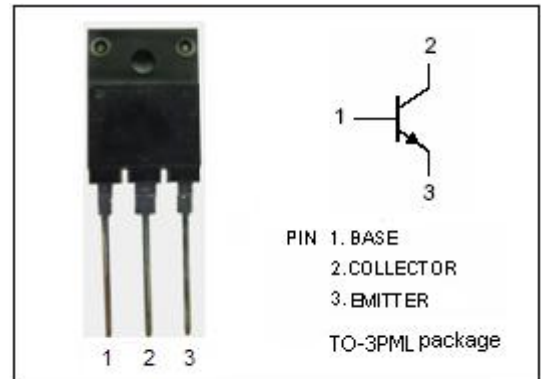
2SD1959

DESCRIPTION

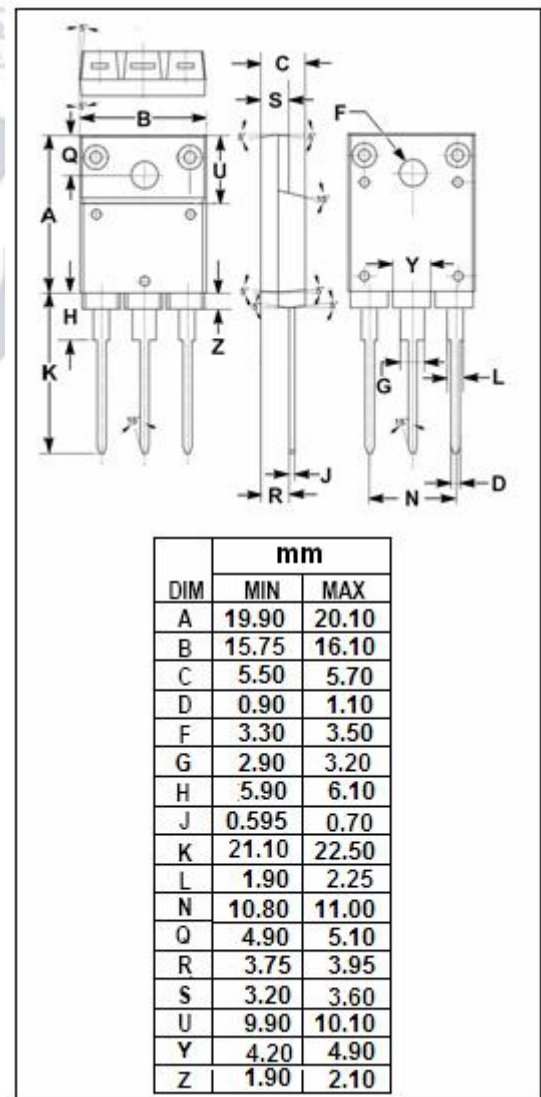
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 650V$ (Min)
- High Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

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	1400	V
V_{CEO}	Collector-Emitter Voltage	650	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current- Continuous	10	A
I_{CM}	Collector Current-Peak	20	A
I_B	Base Current- Continuous	5	A
I_{BM}	Base Current-Peak	8	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	2.8	$^\circ C/W$

isc Silicon NPN Power Transistor**2SD1959****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 = 30mA ; I _B = 0	650			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 1mA; I _C = 0	6			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 6A; I _B = 1.2A			5.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 6A; I _B = 1.2A			1.1	V
I _{CES}	Collector Cutoff Current	V _{CE} = 1500V ; V _{BE} = 0 V _{CE} = 1500V ; V _{BE} = 0; T _C =125°C			1.0 2.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 6V ; I _C = 0			0.1	mA
h _{FE-1}	DC Current Gain	I _C = 1A ; V _{CE} = 5V	10		30	
h _{FE-2}	DC Current Gain	I _C = 6A ; V _{CE} = 5V	5		9.5	
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V; f _{test} = 1MHz		200		pF
t _f	Fall Time	I _C = 6A; I _{B1} = I _{B2} = 1.2A;			1.0	μ s