

isc Silicon NPN Power Transistor
2SC3685
DESCRIPTION

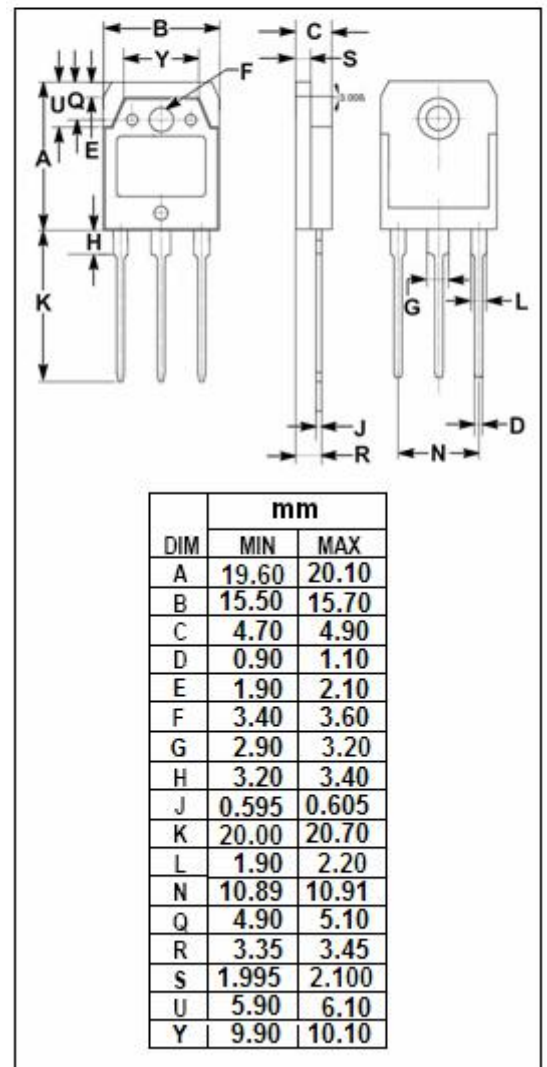
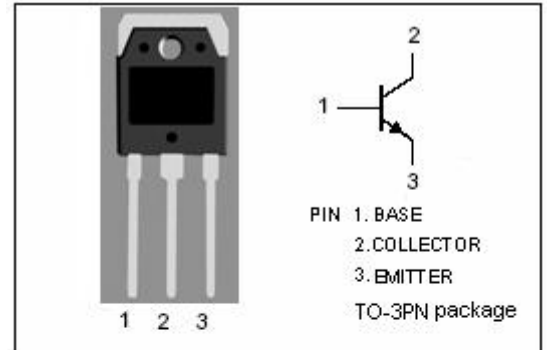
- High Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 800V(\text{Min})$
- High Switching Speed
- Wide Area of Safe Operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for ultrahigh-definition color display horizontal deflection output applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1500	V
V_{CEO}	Collector-Emitter Voltage	800	V
V_{EBO}	Emitter-Base voltage	6	V
I_C	Collector Current-Continuous	6	A
I_{CM}	Collector Current-Peak	16	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	125	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



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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	800			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 4A; I _B = 1A			5.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 4A; I _B = 1A			1.5	V
I _{CES}	Collector Cutoff Current	V _{CE} = 1500V; R _{BE} = 0			1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 4V; I _C = 0			1	mA
h _{FE}	DC Current Gain	I _C = 1A; V _{CE} = 5V	8			

Switching Times

t _{stg}	Storage Time	I _C = 4A; I _{B1} = 0.8A; I _{B2} = -1.6A			3.0	μs
t _f	Fall Time				0.2	μs

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