

SPTECH Silicon NPN Power Transistor

2SC3688

DESCRIPTION

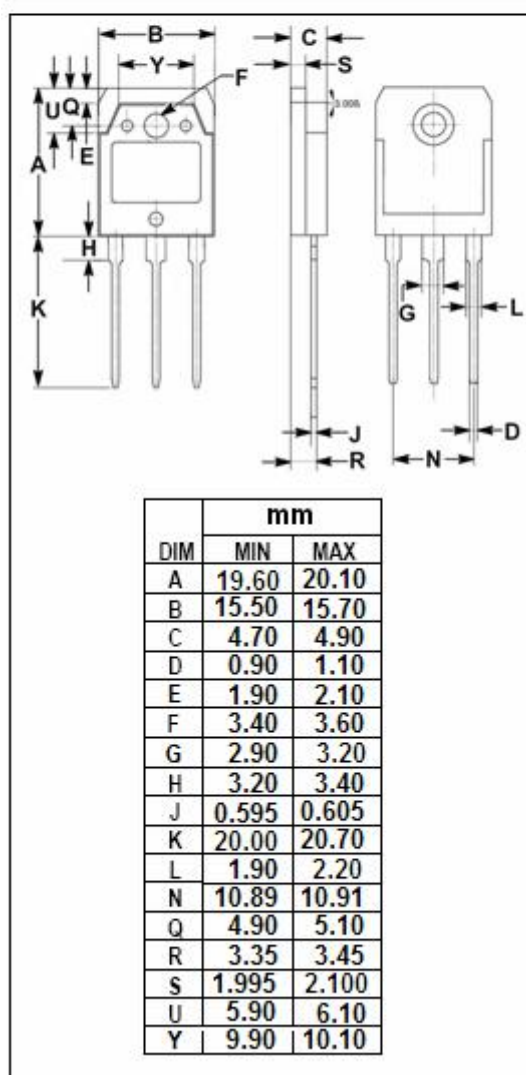
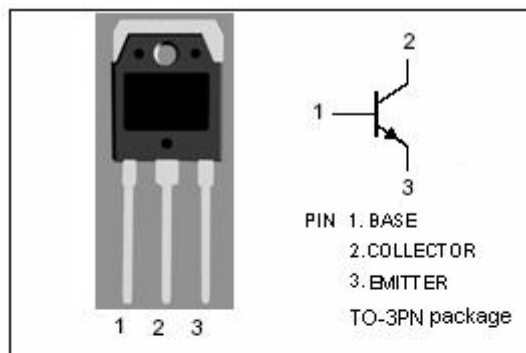
- High Breakdown Voltage-
: $V_{(BR)CBO} = 1500V(\text{Min})$
- High Switching Speed
- High Reliability

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	10	A
I_{CM}	Collector Current-Peak	25	A
P_C	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	150	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



SPTECH Silicon NPN Power Transistor

2SC3688

ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=10\text{mA}$; $I_B=0$	800			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=8\text{A}$; $I_B=2\text{A}$			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=8\text{A}$; $I_B=2\text{A}$			1.5	V
I_{CES}	Collector Cutoff Current	$V_{CE}=1500\text{V}$; $R_{BE}=0$			1.0	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=4\text{V}$; $I_C=0$			1.0	mA
h_{FE}	DC Current Gain	$I_C=1\text{A}$; $V_{CE}=5\text{V}$	8			

Switching times

t_{stg}	Storage Time	$I_C=6\text{A}$, $I_{B1}=1.2\text{A}$; $I_{B2}=-2.4\text{A}$; $V_{CC}=200\text{V}$			3.0	μs
t_f	Fall Time				0.2	μs