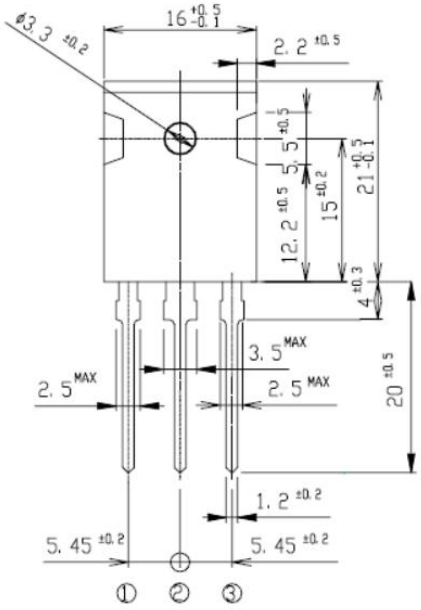
SPTECH Silicon NPN Power Transistor

DESCRIPTION

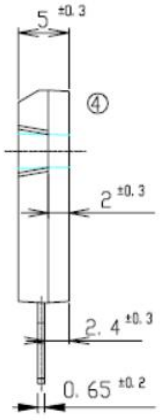
- Collector-Emitter Sustaining Voltage-: $V_{CEO(SUS)}$= 550V(Min)
- Fast Switching speed

APPLICATIONS

- Color TV horizontal output applications



①: B
②: C
③: E



ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1000	V
V_{CEO}	Collector-Emitter Voltage	550	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	12	A
I_{CM}	Collector Current-Peak	25	A
I_B	Base Current-Continuous	4	A
I_{BM}	Base Current-Peak	8	A
P_T	Total Power Dissipation @ T_C=25℃	150	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	0.83	℃/W

SPTECH Silicon NPN Power Transistor

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 10mA; I_B= 0	550			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 5A; I_B= 1A			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 5A; I_B= 1A			1.5	V
I_{CBO}	Collector Cutoff Current	At rated Voltage			100	μA
I_{CEO}	Collector Cutoff Current	At rated Voltage			100	μA
I_{EBO}	Emitter Cutoff Current	At rated Voltage			100	μA
h_{FE-1}	DC Current Gain	I_C= 5A ; V_{CE}= 5V	18		28	
h_{FE-2}	DC Current Gain	I_C= 1mA ; V_{CE}= 5V	5			
f_T	Current-Gain—Bandwidth Product	I_C= 1A ; V_{CE}= 10V		8		MHz

Switching times

t_{on}	Turn-on Time	I_C= 5A , I_{B1}= 1A; I_{B2}= -2A R_L= 50Ω ; V_{BB2}= 4V			0.5	μs
t_{stg}	Storage Time				3.5	μs
t_f	Fall Time				0.3	μs