

SPTECH Silicon NPN Power Transistor

2SC3300

DESCRIPTION

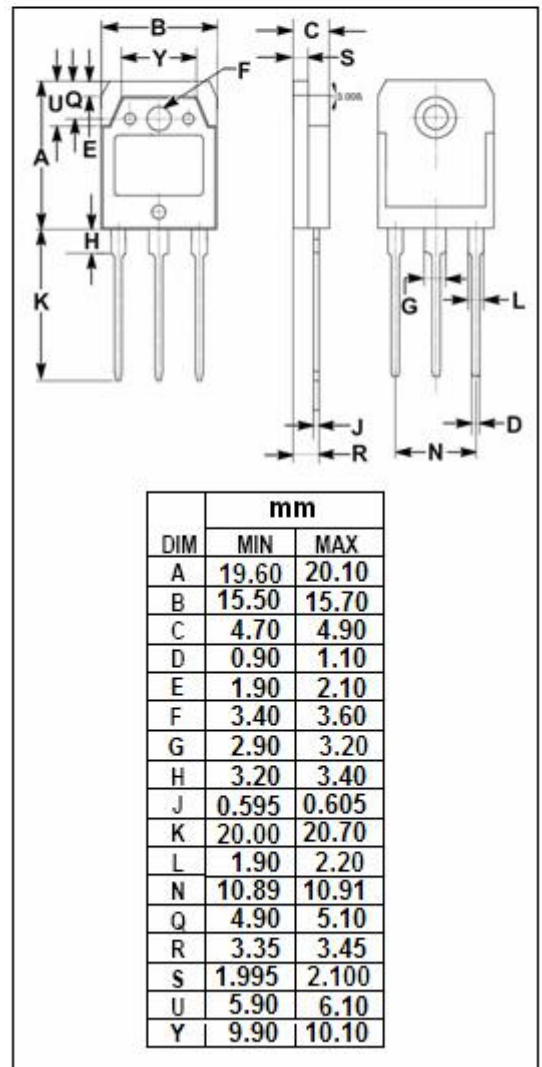
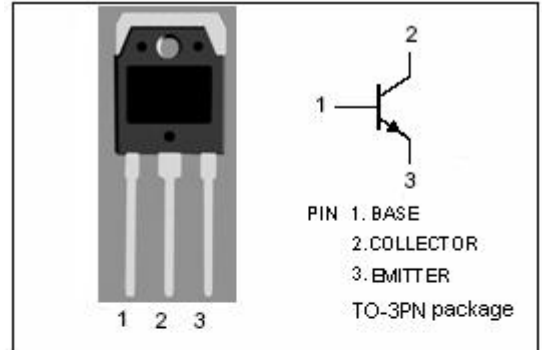
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 50V(\text{Min})$
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = 0.5V(\text{Max}) @ I_C = 5A$

APPLICATIONS

- Designed for DC-DC converter, emergency lighting inverter and general purpose applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	15	V
I_C	Collector Current-Continuous	15	A
I_{CP}	Collector Current-Peak	25	A
I_B	Base Current-Continuous	4	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	60	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



SPTECH Silicon NPN Power Transistor**2SC3300****ELECTRICAL CHARACTERISTICS** **$T_C=25^{\circ}\text{C}$ unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C= 25\text{mA}$; $I_B= 0$	50			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C= 5\text{A}$; $I_B= 80\text{mA}$			0.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C= 5\text{A}$; $I_B= 80\text{mA}$			1.2	V
I_{CBO}	Collector Cutoff Current	$V_{CB}= 100\text{V}$; $I_E= 0$			10	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}= 15\text{V}$; $I_C= 0$			10	μA
h_{FE}	DC current gain	$I_C= 5\text{A}$; $V_{CE}= 1\text{V}$	60		360	
f_T	Current-Gain—Bandwidth Product	$I_E= -1\text{A}$; $V_{CE}= 12\text{V}$		18		MHz