

SPTECH Silicon PNP Power Transistor

BD302

DESCRIPTION

- DC Current Gain -
: $h_{FE} = 30(\text{Min.}) @ I_C = -3A$
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -45V(\text{Min.})$
- Complement to Type BD301

APPLICATIONS

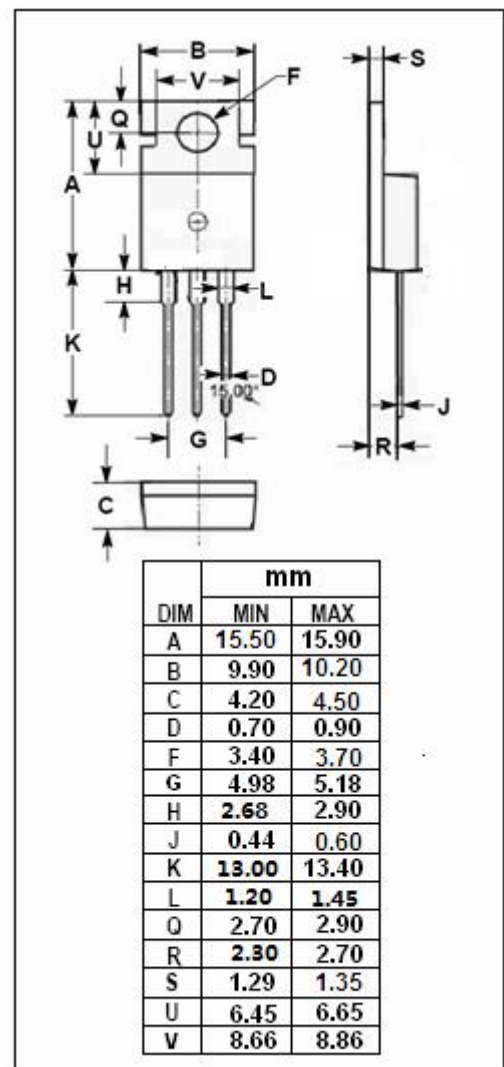
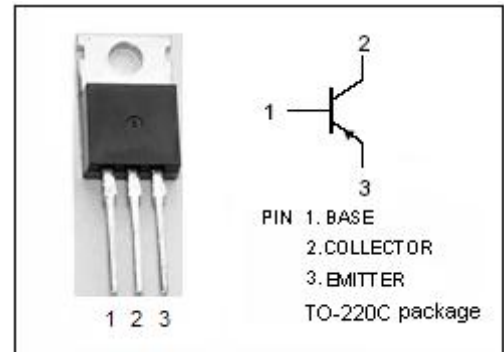
- Designed for audio output stages up to 25W, vertical deflection circuits in color TV receivers.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-45	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-8	A
I_{CM}	Collector Current-Peak	-12	A
I_B	Base Current-Continuous	-2	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	55	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.3	$^\circ\text{C/W}$



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -30\text{mA}$; $I_B = 0$	-45		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -3\text{A}$; $I_B = -0.3\text{A}$		-1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -3\text{A}$; $I_B = -0.3\text{A}$		-1.5	V
I_{CEO}	Collector Cutoff Current	$V_{CE} = -30\text{V}$; $I_B = 0$		-1.0	mA
I_{CBO}	Collector Cutoff Current	$V_{CB} = -40\text{V}$; $I_E = 0$; $T_C = 150^{\circ}\text{C}$		-1.0	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5\text{V}$; $I_C = 0$		-5.0	mA
h_{FE}	DC Current Gain	$I_C = -3\text{A}$; $V_{CE} = -2\text{V}$	30		
f_T	Current-Gain—Bandwidth Product	$I_C = -0.3\text{A}$; $V_{CE} = -3\text{V}$	3		MHz