

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
: $V_{CEQ(SUS)} = -300V(\text{Min})$
- DC current gain -
: $h_{FE} = 30 \sim 150 @ I_C = -0.3A$
- With TO-220 Package
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

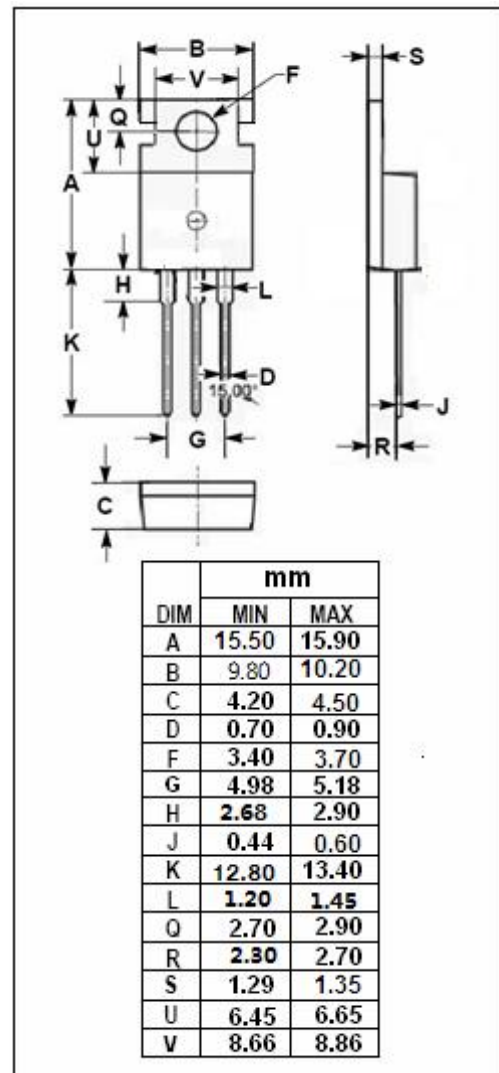
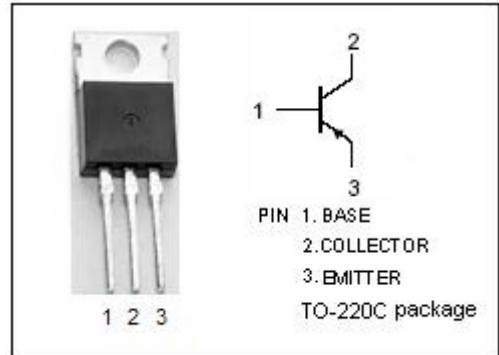
- Designed for line operated audio output amplifier, switchmode power supply drivers and other switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-300	V
V_{CEO}	Collector-Emitter Voltage	-300	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-1	A
I_{CM}	Collector Current-Peak	-3	A
I_B	Base Current	-1	A
P_C	Collector Power Dissipation @ $T_a = 25^\circ\text{C}$	2	W
	Collector Power Dissipation @ $T_c = 25^\circ\text{C}$	40	
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	3.125	$^\circ\text{C/W}$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	62.5	$^\circ\text{C/W}$



ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = -30\text{mA}$; $I_B = 0$	-300		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -1\text{A}$; $I_B = -0.2\text{A}$		-1.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = -1\text{A}$; $V_{CE} = -10\text{V}$		-1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -300\text{V}$; $I_E = 0$		-1.0	mA
I_{CEO}	Collector Cutoff Current	$V_{CE} = -300\text{V}$; $I_B = 0$		-1.0	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5\text{V}$; $I_C = 0$		-1.0	mA
h_{FE-1}	DC Current Gain	$I_C = -0.3\text{A}$; $V_{CE} = -10\text{V}$	30	150	
h_{FE-2}	DC Current Gain	$I_C = -1\text{A}$; $V_{CE} = -10\text{V}$	10		
f_T	Current Gain-Bandwidth Product	$I_C = -0.2\text{A}$; $V_{CE} = -10\text{V}$; $f_{test} = 2.0\text{MHz}$	10		MHz

Pulse Test: Pulse Width $\leq 300\text{ }\mu\text{s}$, Duty Cycle $\leq 2\%$.