

DESCRIPTION

- High DC Current Gain-
: $h_{FE} = 1000(\text{Min}) @ I_C = 1\text{A}$
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(\text{SUS})} = 100\text{V}(\text{Min})$
- Low Collector-Emitter Saturation Voltage-
: $V_{CE(\text{sat})} = 2.5\text{V}(\text{Max}) @ I_C = 2\text{A}$
- Complement to Type TIP117

APPLICATIONS

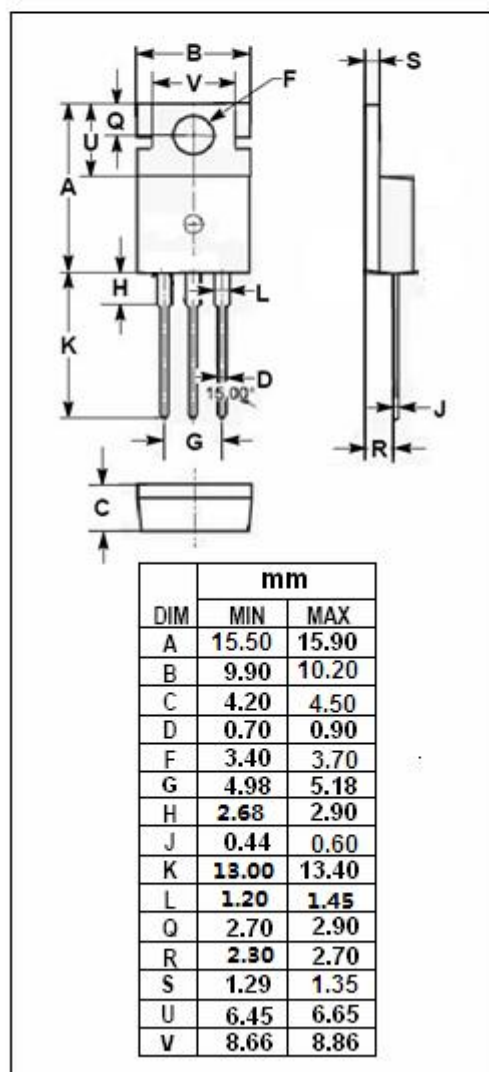
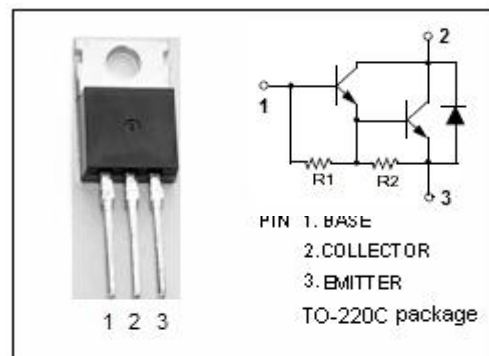
- Designed for general purpose amplifier and low speed switching applications.

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	100	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	2	A
I_{CM}	Collector Current-Peak	4	A
I_B	Base Current	50	mA
P_C	Collector Power Dissipation $T_C = 25^\circ\text{C}$	50	W
	Collector Power Dissipation $T_a = 25^\circ\text{C}$	2	
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	2.5	$^\circ\text{C/W}$
$R_{th\ j-a}$	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	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=30\text{mA}$, $I_B=0$	100			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=2\text{A}$, $I_B=8\text{mA}$			2.5	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C=2\text{A}$; $V_{CE}=4\text{V}$			2.8	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=100\text{V}$, $I_E=0$			1.0	mA
I_{CEO}	Collector Cutoff Current	$V_{CE}=50\text{V}$, $I_B=0$			2.0	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=5\text{V}$; $I_C=0$			2.0	mA
h_{FE-1}	DC Current Gain	$I_C=1\text{A}$; $V_{CE}=4\text{V}$	1000			
h_{FE-2}	DC Current Gain	$I_C=2\text{A}$; $V_{CE}=4\text{V}$	500			
C_{OB}	Output Capacitance	$I_E=0$; $V_{CB}=10\text{V}$, $f=0.1\text{MHz}$			200	pF