

**DESCRIPTION**

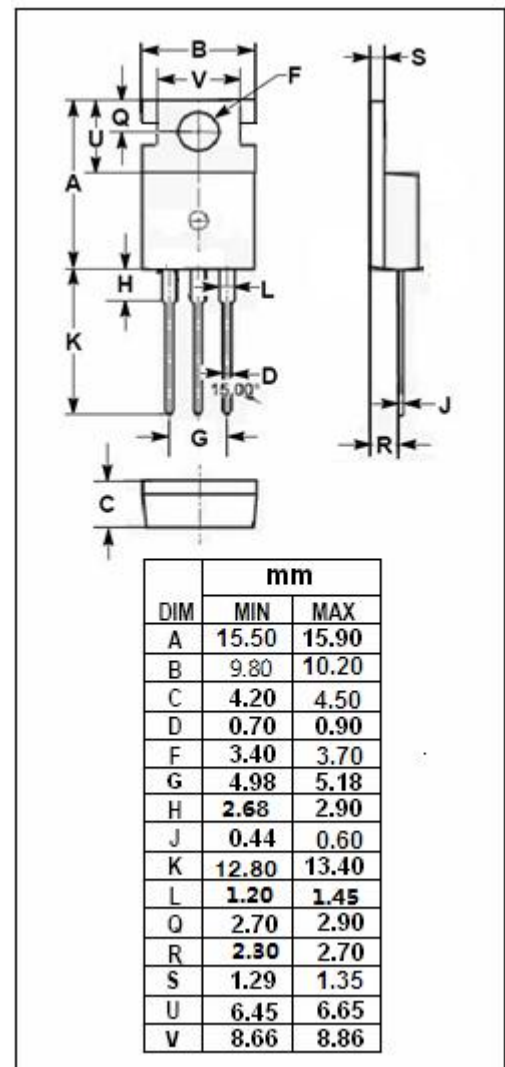
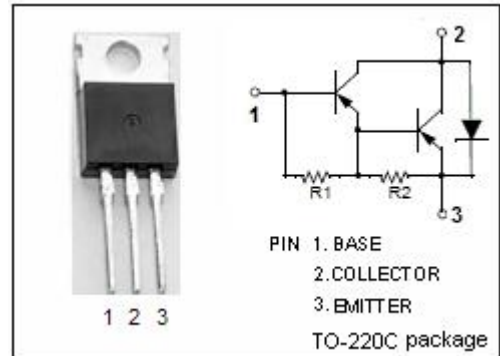
- High DC Current Gain-  
:  $h_{FE} = 2000(\text{Min})@ I_C = -3\text{A}$
- Collector-Emitter Sustaining Voltage-  
:  $V_{CEO(\text{SUS})} = -100\text{V}(\text{Min})$
- Low Collector-Emitter Saturation Voltage-  
:  $V_{CE(\text{sat})} = -1.5\text{V}(\text{Max})@ I_C = -3\text{A}$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for use in low-frequency power amplifiers and low-speed switching applications.
- Ideal for use in direct drive from IC output for magnet drivers such as terminal equipment or cash registers.

**ABSOLUTE MAXIMUM RATINGS (Ta=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-100	V
$V_{CEO}$	Collector-Emitter Voltage	-100	V
$V_{EBO}$	Emitter-Base Voltage	-7	V
$I_C$	Collector Current-Continuous	-5	A
$I_{CM}$	Collector Current-Peak	-8	A
$I_B$	Base Current-DC	-0.5	A
$P_C$	Collector Power Dissipation $T_C = 25^\circ\text{C}$	30	W
	Collector Power Dissipation $T_a = 25^\circ\text{C}$	1.5	
$T_j$	Junction Temperature	150	°C
$T_{\text{stg}}$	Storage Temperature Range	-55~150	°C



**ELECTRICAL CHARACTERISTICS**

 T<sub>c</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>c</sub> = -3A , I <sub>B</sub> = -3mA			-1.5	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>c</sub> = -3A , I <sub>B</sub> = -3mA			-2.0	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -100V, I <sub>E</sub> = 0			-10	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -5V; I <sub>C</sub> = 0			-3	mA
h <sub>FE-1</sub>	DC Current Gain	I <sub>c</sub> = -3A ; V <sub>CE</sub> = -2V	2000		15000	
h <sub>FE-2</sub>	DC Current Gain	I <sub>c</sub> = -5A ; V <sub>CE</sub> = -2V	500			

**Switching times**

t <sub>on</sub>	Turn-on Time	R <sub>L</sub> = 17 Ω , V <sub>CC</sub> ≈ -50V I <sub>c</sub> = -3A; I <sub>B1</sub> = -I <sub>B2</sub> = -3mA		0.5		μ s
t <sub>stg</sub>	Storage Time			1.0		μ s
t <sub>f</sub>	Fall Time			1.0		μ s

**◆ h<sub>FE-1</sub> Classifications**

R	O	Y
2000-5000	3000-7000	5000-15000

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