

**DESCRIPTION**

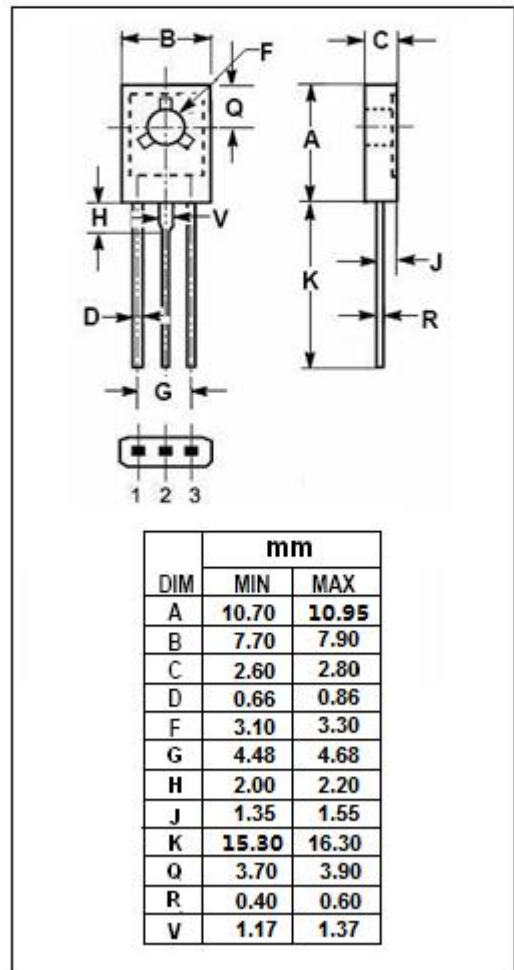
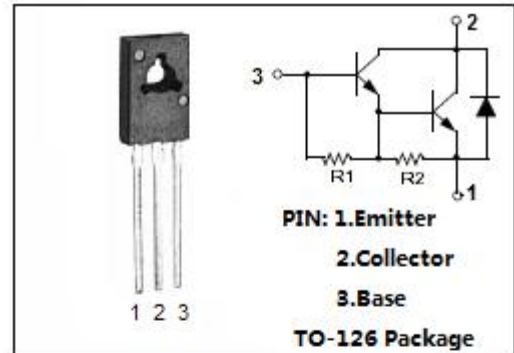
- Low Collector–Emitter Sustaining Voltage
- High DC Current Gain
- Built-in a damper diode at E-C
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for general-purpose amplifier applications.

**ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CBO</sub>	Collector-Base Voltage	150	V
V <sub>CEO</sub>	Collector-Emitter Voltage	100	V
V <sub>EBO</sub>	Emitter-Base Voltage	8	V
I <sub>C</sub>	Collector Current-Continuous	3	A
I <sub>CM</sub>	Collector Current-Peak	5	A
P <sub>C</sub>	Collector Power Dissipation T <sub>a</sub> =25°C	1.3	W
	Collector Power Dissipation T <sub>C</sub> =25°C	15	
T <sub>i</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C



**ELECTRICAL CHARACTERISTICS**

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TY P.	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-Emitter Sustaining Voltage	I <sub>C</sub> = 30mA; I <sub>B</sub> = 3mA, L= 1.0mH	100			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 1.5A; I <sub>B</sub> = 1.5mA			1.2	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 1.5A; I <sub>B</sub> = 1.5mA			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>CEO</sub>	Collector Cutoff Current	V <sub>CE</sub> = 100V; R <sub>BE</sub> = ∞			1.0	mA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 1.5 A; V <sub>CE</sub> = 2V	2000		20000	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = 3 A; V <sub>CE</sub> = 2V	1000			

**Switching Times**

t <sub>on</sub>	Turn-on Time	I <sub>C</sub> = 1.5A, I <sub>B1</sub> = I <sub>B2</sub> = 1.5mA; R <sub>L</sub> = 27 Ω; V <sub>CC</sub> ≈ 40V		0.5		μ s
t <sub>stg</sub>	Storage Time			2.0		μ s
t <sub>f</sub>	Fall Time			1.0		μ s

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

M	L	K
2000-5000	4000-12000	8000-20000

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