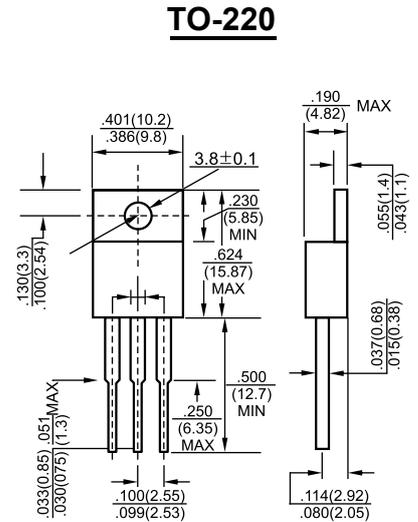


1. BASE
2. COLLECTOR
3. EMITTER

### Features

- ✧ Wide ASO (Adoption of MBIT process).
- ✧ Low saturation voltage.
- ✧ High reliability.
- ✧ High breakdown voltage.



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise noted)

Symbol	Parameter	Value	Units
V <sub>CB0</sub>	Collector- Base Voltage	-60	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-60	V
V <sub>EBO</sub>	Emitter-Base Voltage	-6	V
I <sub>C</sub>	Collector Current -Continuous	-3	A
P <sub>C</sub>	Collector Power Dissipation	2	W
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature	-55-150	°C

### ELECTRICAL CHARACTERISTICS (T<sub>amb</sub>=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = -1mA, I <sub>E</sub> = 0	-60			V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = -5mA, I <sub>B</sub> = 0	-60			V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = -1mA, I <sub>C</sub> = 0	-6			V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> = -40V, I <sub>E</sub> = 0			-0.1	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = -4V, I <sub>C</sub> = 0			-0.1	μA
DC current gain	h <sub>FE(1)</sub>	V <sub>CE</sub> = -5V, I <sub>C</sub> = -500mA	70		280	
	h <sub>FE(2)</sub>	V <sub>CE</sub> = -5V, I <sub>C</sub> = -3A	20			
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = -2A, I <sub>B</sub> = -200mA			-1	V
Base-emitter voltage	V <sub>BE</sub>	V <sub>CE</sub> = -5V, I <sub>C</sub> = -500mA			-1	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = -5V, I <sub>C</sub> = -500mA		100		MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = -10V, I <sub>E</sub> = 0, f = 1MHz		60		pF

### CLASSIFICATION OF h<sub>FE(1)</sub>

Rank	Q	R	S
Range	70-140	100-200	140-280

**Typical Characteristics**
