



## TO-220 Plastic-Encapsulated Transistors

### MJE3055 TRANSISTOR (NPN)

#### FEATURES

Power dissipation

$$P_{CM}: 2 \text{ W (Tamb=25°C)}$$

Collector current

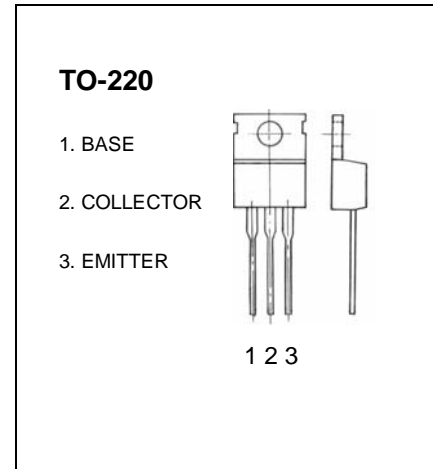
$$I_{CM}: 10 \text{ A}$$

Collector-base voltage

$$V_{(BR)CBO}: 70 \text{ V}$$

Operating and storage junction temperature range

$$T_J, T_{stg}: -55^\circ\text{C to } +150^\circ\text{C}$$



#### ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=1\text{mA}, I_E=0$	70			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=200\text{mA}, I_B=0$	60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=1\text{mA}, I_C=0$	5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=70\text{V}, I_E=0$			1	mA
Collector cut-off current	$I_{CEO}$	$V_{CE}=30\text{V}, I_E=0$			0.7	mA
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5\text{V}, I_C=0$			5	mA
DC current gain	$h_{FE(1)}$	$V_{CE}=4\text{V}, I_C=4\text{A}$	20		100	
	$h_{FE(2)}$	$V_{CE}=4\text{V}, I_C=10\text{A}$	5			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=4\text{A}, I_B=400\text{mA}$			1.1	V
		$I_C=10\text{A}, I_B=3.3\text{A}$			8	V
Base-emitter voltage	$V_{BE}$	$V_{CE}=4\text{V}, I_C=4\text{A}$			1.8	V
Transition frequency	$f_T$	$V_{CE}=10\text{V}, I_C=500\text{mA}$		2		MHz