



TO-92 Plastic-Encapsulate Transistor (NPN)

C1815

C1815 TRANSISTOR (NPN)

FEATURES

Power dissipation

$$P_{CM}: 0.4 \text{ W (Tamb=25°C)}$$

Collector current

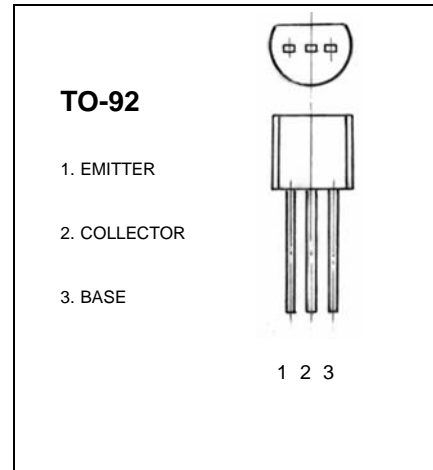
$$I_{CM}: 0.15 \text{ A}$$

Collector-base voltage

$$V_{(BR)CBO}: 60 \text{ V}$$

Operating and storage junction temperature range

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



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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100\mu A, I_E = 0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 0.1 \text{ mA}, I_B = 0$	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100\mu A, I_C = 0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB} = 60V, I_E = 0$			0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE} = 50V, I_B = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5V, I_C = 0$			0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = 6V, I_C = 2mA$	70		700	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100mA, I_B = 10 \text{ mA}$			0.25	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 100 \text{ mA}, I_B = 10mA$			1	V
Transition frequency	f_T	$V_{CE} = 10 \text{ V}, I_C = 1mA$ $f = 30MHz$	80			

CLASSIFICATION OF $h_{FE(1)}$

Rank	O	Y	GR	BL
Range	70-140	120-240	200-400	350-700