



DONGGUAN NANJING ELECTRONICS LTD.,

TO-92 Plastic-Encapsulate Transistors

C2611

TRANSISTOR (NPN)

FEATURES

Power dissipation

$$P_{CM} : 0.75 \text{ W (Tamb=25}^\circ\text{C)}$$

Collector current

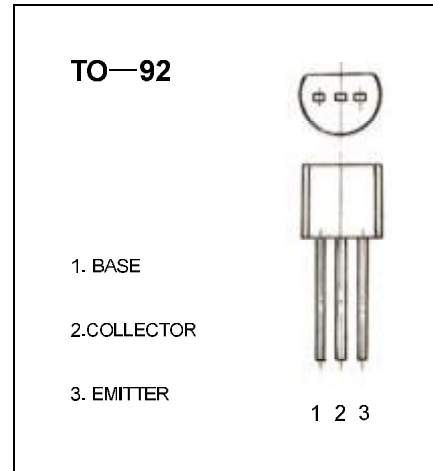
$$I_{CM} : 0.2 \text{ A}$$

Collector-base voltage

$$V_{(BR)CBO} : 600 \text{ V}$$

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	$V_{(BR)CBO}$	$I_C = 100 \mu A, I_E = 0$	600			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1 \text{ mA}, I_B = 0$	400			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100 \mu A, I_C = 0$	7			V
Collector cut-off current	I_{CBO}	$V_{CB} = 600 \text{ V}, I_E = 0$			100	μA
Collector cut-off current	I_{CEO}	$V_{CE} = 400 \text{ V}, I_B = 0$			200	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 7 \text{ V}, I_C = 0$			100	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = 20 \text{ V}, I_C = 20 \text{ mA}$	10		40	
	$h_{FE(2)}$	$V_{CE} = 10 \text{ V}, I_C = 0.25 \text{ mA}$	5			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 50 \text{ mA}, I_B = 10 \text{ mA}$			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 50 \text{ mA}, I_B = 10 \text{ mA}$			1.2	V
Transition frequency	f_T	$V_{CE} = 20 \text{ V}, I_C = 20 \text{ mA}$ $f = 1 \text{ MHz}$	8			MHz
Fall time	t_f	$I_C = 50 \text{ mA}, I_{B1} = -I_{B2} = 5 \text{ mA}$			0.3	μs
Storage time	t_s	$V_{CC} = 45 \text{ V}$			1.5	μs

CLASSIFICATION OF $h_{FE(1)}$

Rank						
Range	10-15	15-20	20-25	25-30	30-35	35-40

Typical Characteristics

C2611

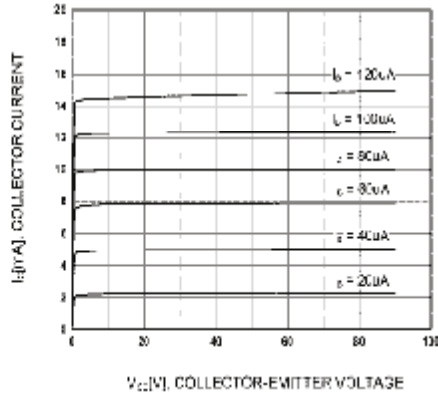


Figure 1. Static Characteristic

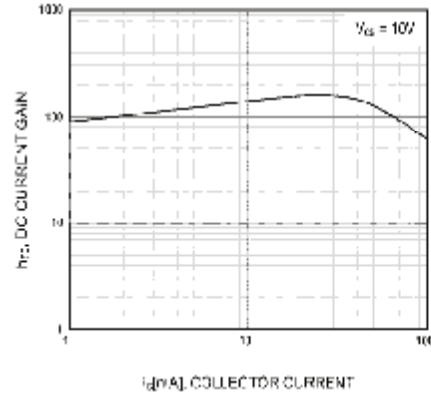


Figure 2. DC current Gain

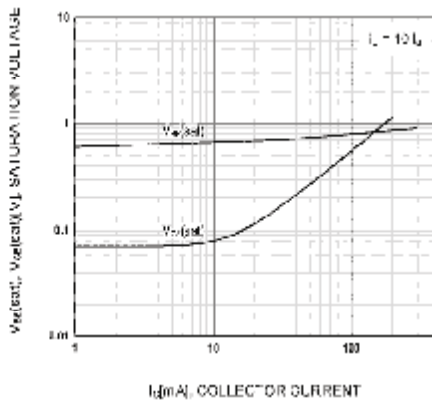


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

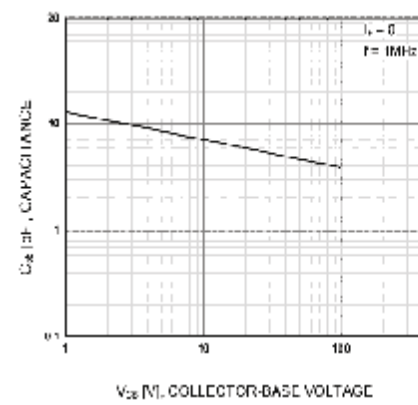


Figure 4. Collector Output Capacitance