



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO.,LTD

TO-251 Plastic-Encapsulate Transistors

C 2611

TRANSISTOR (NPN)

FEATURES

Power dissipation

 P_{CM} : 1 W (Tamb=25)

Collector current

 I_{CM} : 0.2 A

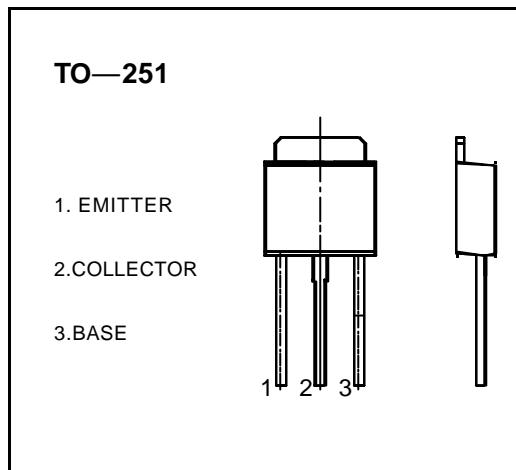
Collector-base voltage

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

Operating and storage junction temperature range

 $T_J, T_{stg.}$ -55 to +150**ELECTRICAL CHARACTERISTICS (Tamb=25**

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

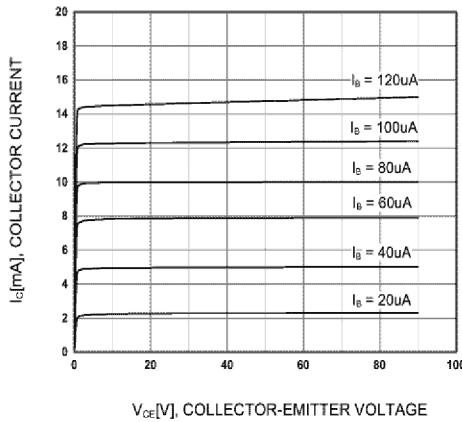


Figure 1. Static Characteristic

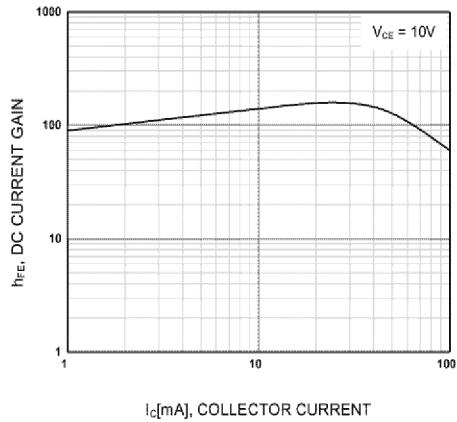


Figure 2. DC current Gain

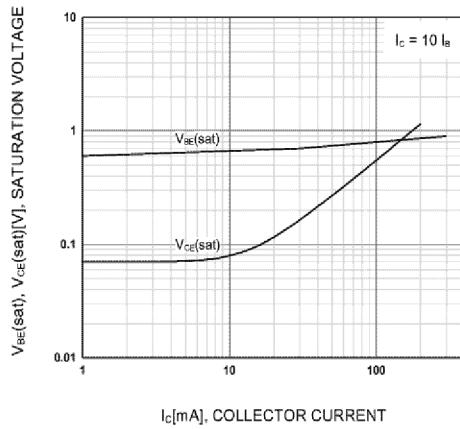


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

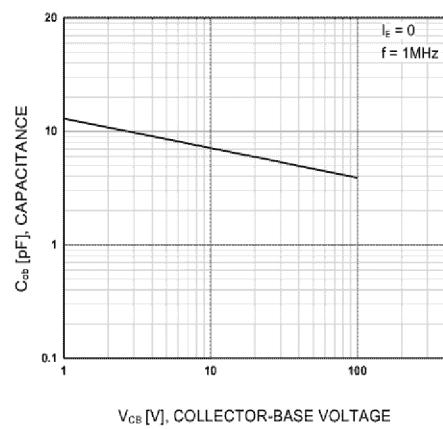
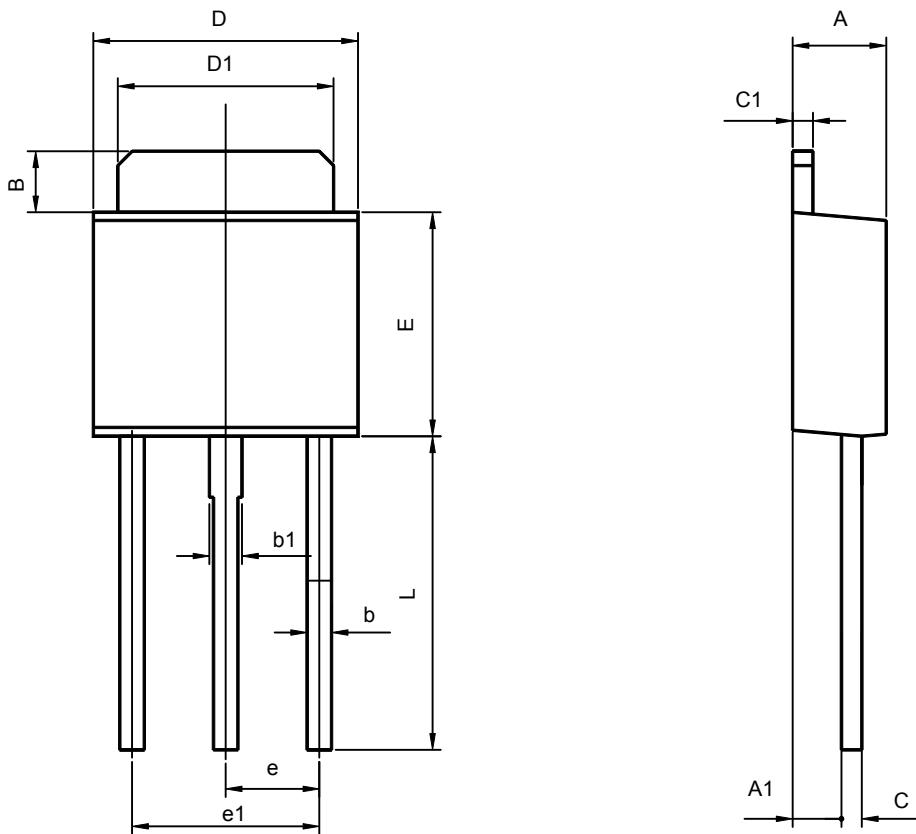


Figure 4. Collector Output Capacitance

TO-251 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	2.200	2.400	0.087	0.094
A1	1.020	1.270	0.040	0.050
B	1.350	1.650	0.053	0.065
b	0.500	0.700	0.020	0.028
b1	0.700	0.900	0.028	0.035
c	0.430	0.580	0.017	0.023
c1	0.430	0.580	0.017	0.023
D	6.350	6.650	0.250	0.262
D1	5.200	5.400	0.205	0.213
E	5.400	5.700	0.213	0.224
e	2.300TYP		0.091TYP	
e1	4.500	4.700	0.177	0.185
L	7.500	7.900	0.295	0.311