



TO-251 Plastic-Encapsulate Transistors

C 2611

TRANSISTOR (NPN)

FEATURES

Power dissipation

 P_{CM} : 1 W ($T_{amb}=25^{\circ}C$)

Collector current

 I_{CM} : 0.2 A

Collector-base voltage

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

Operating and storage junction temperature range

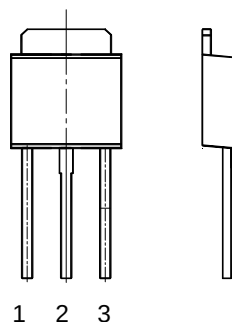
 T_J, T_{stg} : $-55^{\circ}C$ to $+150^{\circ}C$

TO-251

1. EMITTER

2. COLLECTOR

3. BASE



ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}C$ 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	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	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}	$V_{CB}=600V, I_E=0$			100	μA
Collector cut-off current	I_{CEO}	$V_{CE}=400V, I_B=0$			200	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=7V, I_C=0$			100	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=20V, I_C=20mA$	10		40	
	$h_{FE(2)}$	$V_{CE}=10V, I_C=0.25mA$	5			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=50mA, I_B=10mA$			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=50mA, I_B=10mA$			1.2	V
Transition frequency	f_T	$V_{CE}=20V, I_C=20mA$ $f=1MHz$	8			MHz
Fall time	t_f	$I_C=50mA,$ $I_{B1}=-I_{B2}=5mA,$ $V_{CC}=45V$			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