NPN Silicon Epitaxial Planar Transistor

High voltage power transistor



Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V _{CBO}	700	V
Collector Emitter Voltage	V _{CEO}	400	V
Emitter Base Voltage	V _{EBO}	9	V
Collector Current	I _C	0.2	А
Collector Current (Pulse)	I _{CP}	0.5	А
Total Power Dissipation	P _{tot}	0.6	W
Operating Junction Temperature	Tj	150	°C
Storage Temperature Range	T _{stg}	- 55 to + 150	°C

Characteristics at T_a = 25 °C

Characteristics at I _a = 25 °C			T	
Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at V_{CE} = 10 V, I_{C} = 10 μ A at V_{CE} = 10 V, I_{C} = 100 mA at V_{CE} = 10 V, I_{C} = 200 mA	h _{FE} h _{FE}	10 20 10	40 40 40	
Collector Base Cutoff Current at $V_{CB} = 700 \text{ V}$	I _{CBO}	-	100	μΑ
Emitter Base Cutoff Current at $V_{EB} = 7 \text{ V}$	I _{EBO}	-	10	μΑ
Collector Base Breakdown Voltage at $I_C = 10 \text{ mA}$	V _{(BR)CBO}	700	-	V
Collector Emitter Breakdown Voltage at $I_C = 1$ mA	V _{(BR)CEO}	400	-	V
Emitter Base Breakdown Voltage at $I_E = 1 \text{ mA}$	$V_{(BR)EBO}$	9	-	V
Collector Emitter Saturation Voltage at $I_C = 100$ mA, $I_B = 10$ mA at $I_C = 200$ mA, $I_B = 20$ mA	V _{CEsat}	-	0.5 2.5	V
Transition Frequency at $V_{CE} = 10 \text{ V}$, $I_C = 100 \text{ mA}$	f _T	4	-	MHz









