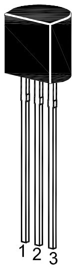
ST 13002

NPN Silicon Epitaxial Planar Transistor

High voltage power transistor



1. Emitter 2. Collector 3. Base
TO-92 Plastic Package

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	A
Collector Current (Pulse)	I_{CP}	0.5	A
Total Power Dissipation	P_{tot}	0.6	W
Operating Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain				
at V_{CE} = 10 V, I_C = 10 µA	h_{FE}	10	40	-
at V_{CE} = 10 V, I_C = 100 mA	h_{FE}	20	40	-
at V_{CE} = 10 V, I_C = 200 mA	h_{FE}	10	40	-
Collector Base Cutoff Current at V_{CB} = 700 V	I_{CBO}	-	100	µA
Emitter Base Cutoff Current at V_{EB} = 7 V	I_{EBO}	-	10	µA
Collector Base Breakdown Voltage at I_C = 10 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 mA	$V_{(BR)EBO}$	9	-	V
Collector Emitter Saturation Voltage	V_{CEsat}			V
at I_C = 100 mA, I_B = 10 mA		-	0.5	
at I_C = 200 mA, I_B = 20 mA		-	2.5	
Transition Frequency at V_{CE} = 10 V, I_C = 100 mA	f_T	4	-	MHz

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