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ST 13002

NPN Silicon Epitaxial Planar Transistor

High voltage power transistor



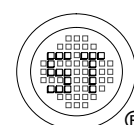
1. Emitter 2. Collector 3. Base
TO-92 Plastic Package

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

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	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain				
at $V_{CE} = 10\text{ V}$, $I_C = 10\text{ }\mu\text{A}$	h_{FE}	10	40	-
at $V_{CE} = 10\text{ V}$, $I_C = 100\text{ mA}$	h_{FE}	20	40	-
at $V_{CE} = 10\text{ V}$, $I_C = 200\text{ mA}$	h_{FE}	10	40	-
Collector Base Cutoff Current at $V_{CB} = 700\text{ V}$	I_{CBO}	-	100	μA
Emitter Base Cutoff Current at $V_{EB} = 7\text{ V}$	I_{EBO}	-	10	μA
Collector Base Breakdown Voltage at $I_C = 10\text{ mA}$	$V_{(BR)CBO}$	700	-	V
Collector Emitter Breakdown Voltage at $I_C = 1\text{ mA}$	$V_{(BR)CEO}$	400	-	V
Emitter Base Breakdown Voltage at $I_E = 1\text{ mA}$	$V_{(BR)EBO}$	9	-	V
Collector Emitter Saturation Voltage at $I_C = 100\text{ mA}$, $I_B = 10\text{ mA}$	V_{CEsat}	-	0.5	V
at $I_C = 200\text{ mA}$, $I_B = 20\text{ mA}$	V_{CEsat}	-	2.5	V
Transition Frequency at $V_{CE} = 10\text{ V}$, $I_C = 100\text{ mA}$	f_T	4	-	MHz



Dated : 05/09/2009