

2SC345

NPN Silicon Epitaxial Planar Transistor

for high voltage applications.



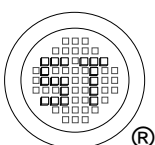
1. Emitter 2. Collector 3. Base
TO-92 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	300	V
Collector Emitter Voltage	V_{CEO}	300	V
Emitter Base Voltage	V_{EBO}	7	V
Collector Current	I_C	100	mA
Base Current	I_B	20	mA
Total Device Dissipation	P_{tot}	625	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE} = 10\text{ V}$, $I_C = 0.5\text{ mA}$ at $V_{CE} = 10\text{ V}$, $I_C = 20\text{ mA}$	h_{FE}	20	-	-	-
	h_{FE}	30	-	200	-
Collector Base Cutoff Current at $V_{CB} = 240\text{ V}$	I_{CBO}	-	-	1	μA
Emitter Base Cutoff Current at $V_{EB} = 5\text{ V}$	I_{EBO}	-	-	1	μA
Collector Emitter Saturation Voltage at $I_C = 10\text{ mA}$, $I_B = 1\text{ mA}$	$V_{CE(sat)}$	-	-	1	V
Gain Bandwidth Product at $V_{CE} = 10\text{ V}$, $I_C = 20\text{ mA}$	f_T	50	-	-	MHz
Collector Output Capacitance at $V_{CB} = 20\text{ V}$, $f = 1\text{ MHz}$	C_{ob}	-	3	-	pF



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ISO/TS 16949 : 2009 Certificate No. 16713309
 ISO 14001 : 2004 Certificate No. 7116
 ISO 9001 : 2008 Certificate No. 16713410
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 IECQ QC 080000 Certificate No. PRC-16294-148-1

Fig. 1 $h_{FE} - I_C$

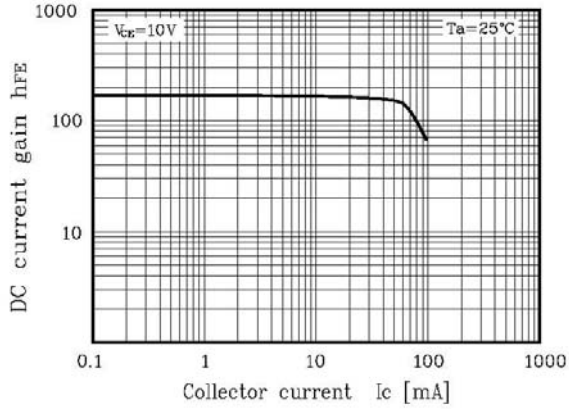


Fig. 2 $V_{CE(sat)} - I_C$

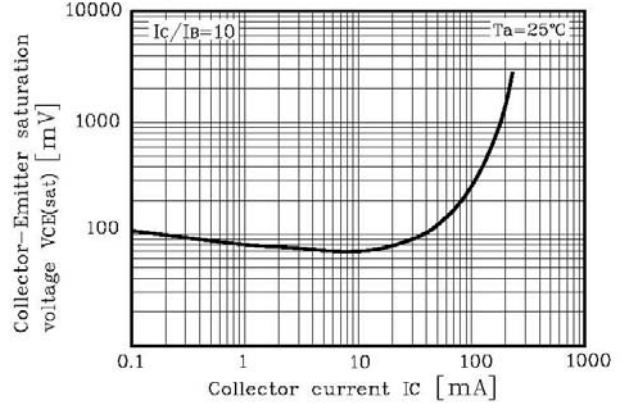


Fig. 3 $f_T - I_C$

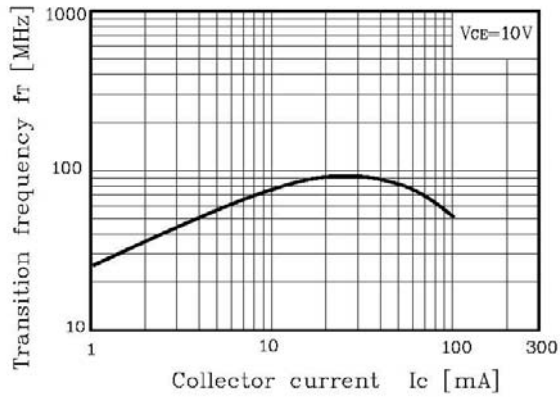
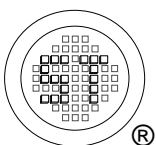
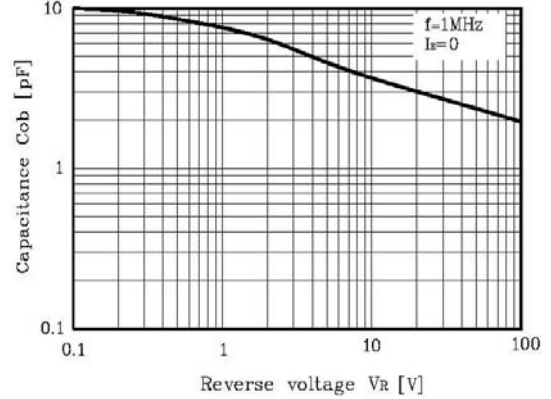


Fig. 4 $C_{ob} - V_R$



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