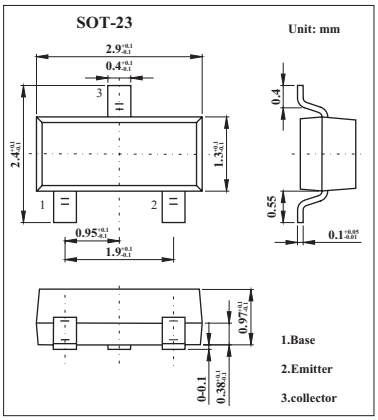
Silicon NPN Epitaxial

2SC5232



■ Features

- Low saturation voltage: $V_{CE\ (sat)}$ (1) = 15 mV (typ.)
  @I_C = 10 mA/I_B = 0.5 mA
- Large collector current: I_C = 500 mA (max).

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	15	V
Collector-emitter voltage	V_{CEO}	12	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	500	mA
Base current	I_B	50	mA
Collector power dissipation	P_C	150	mW
Junction temperature	T_j	125	℃
Storage temperature	T_{stg}	-55 to +125	℃

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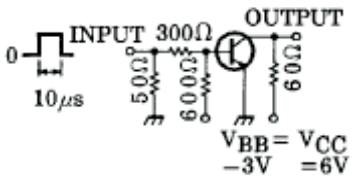
■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cut-off current	I_{CBO}	V_{CB} = 15 V, I_E = 0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB} = 5 V, I_C = 0			0.1	μA
DC current gain	h_{FE}	V_{CE} = 2 V, I_C = 10 mA	300		1000	
Collector-emitter saturation voltage	$V_{CE\ (sat)}$	I_C = 10 mA, I_B = 0.5 mA		15	30	V
		I_C = 200 mA, I_B = 10 mA		110	250	
Base-emitter saturation voltage	$V_{BE\ (sat)}$	I_C = 200 mA, I_B = 10 mA		0.87	1.2	V
Transition frequency	f_T	V_{CE} = 2 V, I_C = 10 mA	80	130		MHz
Collector output capacitance	C_{ob}	V_{CB} = 10 V, I_E = 0, f = 1 MHz		4.2		pF
Collector-emitter on resistance	Ron	I_B = 1 mA, Vin = 1 Vrms, f = 1 kHz		0.9		Ω
Turn-on time	ton			85		ns
Storage time	tstg			170		ns
Fall time	tf	Duty cycle≤2%,I_{B1}=-I_{B2}=5 Ma		40		ns

■ h_{FE} Classification

Marking	F	
Rank	A	B
hFE	300～600	500～1000