XP05555 (XP5555)

Silicon NPN epitaxial planer transistor

For high speed switching

Features

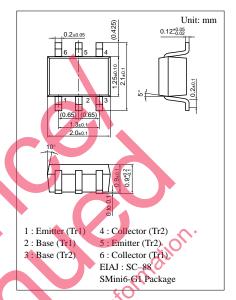
- Two elements incorporated into one package.
- Reduction of the mounting area and assembly cost by one half.

Basic Part Number of Element

• $2SC4782 \times 2$ elements

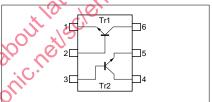
Absolute Maximum Ratings (Ta=25°C)

Parameter		Symbol	Ratings	Unit	
Rating of element	Collector to base voltage	V_{CBO}	25	V	
	Collector to emitter voltage	V _{CES}	20	V	
	Emitter to base voltage	V_{EBO}	5	V	
	Collector current	I_{C}	200	mA	
	Peak collector current	I_{CP}	300	mA	
Overall	Total power dissipation	P_{T}	150	mW	
	Junction temperature	T_j	150	°C	
	Storage temperature	T _{stg}	-55 to +150	°C	



Marking Symbol: EO

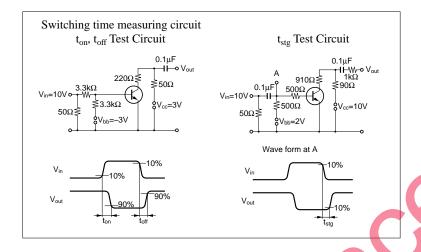
Internal Connection

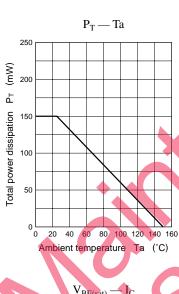


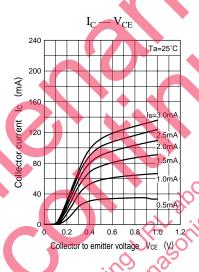
Electrical Characteristics (Ta=25°C)

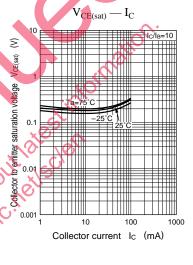
Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = 10V, I_E = 0$			0.1	μΑ
Emitter cutoff current	I_{EBO}	$V_{EB} = 4V, I_C = 0$			0.1	μΑ
Forward current transfer ratio	h_{FE}	$V_{CE} = 1V, I_{C} = 10mA$	40		200	
Collector to emitter saturation voltage	V _{CE(sat)}	$I_C = 10$ mA, $I_B = 1$ mA		0.17	0.25	V
Base to emitter saturation voltage	V _{BE(sat)}	$I_C = 10mA$, $I_B = 1mA$		0.76	1.0	V
Transition frequency	₩.	$V_{CB} = 10V, I_E = -10mA, f = 200MHz$		200	500	MHz
Collector output capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1MHz$		2	4	pF
Turn-on time	t _{on}			17		ns
Turn-off time	t _{off}	*1		15		ns
Storage time	t _{stg}			7		ns

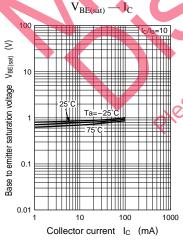
^{*1} Switching time measuring circuit

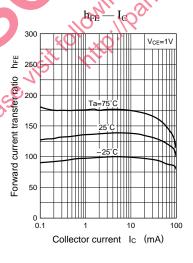


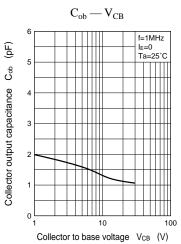












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