

2SC4190 (Preliminary)

Silicon NPN Epitaxial Planar Type

Video Output

■ Feature

- High transition frequency (f_T).

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

Item	Symbol	Value	Unit	
Collector-base voltage	V_{CB0}	50	V	
Collector-emitter voltage	V_{CEO}	40	V	
Emitter-base voltage	V_{EBO}	4	V	
Peak collector current	I_{CP}	500	mA	
Collector current	I_C	300	mA	
Collector power dissipation	P_C	$T_C=25^\circ\text{C}$	8	W
		$T_a=25^\circ\text{C}$	2.0	
Junction temperature	T_j	150	$^\circ\text{C}$	
Storage temperature	T_{stg}	$-55 \sim +150$	$^\circ\text{C}$	

■ Electrical Characteristics ($T_c=25^\circ\text{C}$)

Item	Symbol	Condition	min.	typ.	max.	Unit
Emitter cutoff current	I_{EBO}	$V_{EB}=3\text{V}, I_C=0$			1	μA
Collector-base voltage	V_{CB0}	$I_C=100\mu\text{A}, I_E=0$	50			V
Collector-emitter voltage	V_{CEO}	$I_C=1\text{mA}, I_B=0$	40			V
Emitter-base voltage	V_{EBO}	$I_E=100\mu\text{A}, I_C=0$	4			V
DC current gain	h_{FE}	$V_{CE}=10\text{V}, I_C=50\text{mA}$	40		200	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=50\text{mA}, I_B=5\text{mA}$			0.3	V
Transition frequency	f_T	$V_{CE}=10\text{V}, I_C=50\text{mA}$	1.5	2.0		GHz
Collector capacitance	C_{ob}	$V_{CB}=30\text{V}, I_E=0, f=1\text{MHz}$		2.4		pF

■ Package Dimensions

