

2SC3796, 2SC3796A

Silicon PNP Triple-Diffused Planar Type

High Breakdown Voltage, High Speed Switching

■ Features

- High speed switching
- High collector-base voltage (V_{CBO})
- Low collector-emitter saturation voltage ($V_{CE(sat)}$)

■ Absolute Maximum Ratings (Tc=25°C)

Item		Symbol	Value	Unit
Collector-base voltage	2SC3796	V_{CBO}	800	V
	2SC3796A		900	
Collector-emitter voltage	2SC3796	V_{CES}	800	V
	2SC3796A		900	
Collector-emitter voltage		V_{CEO}	500	V
Emitter-base voltage		V_{EBO}	8	V
Peak collector current		I_{CP}	10	A
Collector current		I_C	5	A
Base current		I_B	3	A
Collector power dissipation	$T_c = 25^\circ C$	P_C	70	W
	$T_a = 25^\circ C$		2.5	W
Junction temperature		T_j	150	$^\circ C$
Storage temperature		T_{stg}	$-55 \sim +150$	$^\circ C$

■ Electrical Characteristics (Tc=25°C)

Item		Symbol	Condition	min.	typ.	max.	Unit	
Collector cutoff current	2SC3796	I _{CBO}	V _{CB} =800 V, I _E =0			100	μA	
	2SC3796A		V _{CB} =900 V, I _E =0			100		
Emitter cutoff current		I _{EBO}	V _{EB} =5 V, I _C =0			100	μA	
Collector-emitter voltage		V _{CEO(sus)}	I _C =0.2 A, L=25 mH	500			V	
DC current gain		h _{FE1}	V _{CE} =5 V, I _C =0.1 A	15				
		h _{FE2}	V _{CE} =5 V, I _C =3 A	8				
Collector-emitter saturation voltage		V _{CE(sat)}	I _C =3 A, I _B =0.6 A			1	V	
Base-emitter saturation voltage		V _{BE(sat)}	I _C =3 A, I _B =0.6 A			1.5	V	
Transition frequency		f _T	V _{CE} =10V, I _C =0.5A, f=1MHz		8		MHz	
Turn-on time	2SC3796	t _{on}	I _C =3 A I _{B1} =0.6 A, I _{B2} =-0.6 A V _{CC} =200 V			1	μs	
	2SC3796A					1.2		
Storage time		t _{stg}				3	μs	
Collector current fall time	2SC3796	t _f					1	μs
	2SC3796A						1.2	

■ Package Dimensions

