Ordering number:EN1756B

NPN Epitaxial Planar Silicon Transistor

2SC3595

Ultrahigh-Definition CRT Display Video Output Applications

Applications

- Ultrahigh-definition CRT display.
- Video output driver.
- Wideband amplifiers.

Features

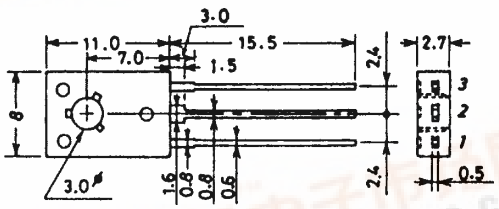
- High f_T : f_T typ=2.0GHz.
- High current : I_C=500mA.

Package Dimensions

unit:mm

2009B

[2SC3595]



1 : Emitter
2 : Collector
3 : Base
JEDEC : TO-126

Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		30	V
Collector-to-Emitter Voltage	V_{CEO}		20	V
Emitter-to-Base Voltage	V_{EBO}		3	V
Collector Current	I_C		500	mA
Collector Current (Pulse)	I_{CP}		1000	mA
Collector Dissipation	P_C		1.2	W
		Tc=25˚C	5	W
Junction Temperature	Tj		150	˚C
Storage Temperature	Tstg		–55 to +150	˚C

Electrical Characteristics at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	V_{CB}=20V, I_E=0			0.1	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=2V			5.0	μA
DC Current Gain	$h_{FE}1$	V_{CE}=5V, I_C=50mA	40*		200*	
	$h_{FE}2$	V_{CE}=5V, I_C=500mA	20			
Gain-Bandwidth Product	f_T	V_{CE}=5V, I_C=100mA		2.0		GHz
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=300mA, I_B=30mA		0.25	0.6	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=300mA, I_B=30mA		0.92	1.2	V

* : The 2SC3595 is classified by 50mA h_{FE} as follows :

40	C	80	60	D	120	100	E	200

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2SC3595

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=10μA, I_E=0	30			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=1mA, R_{BE}=∞	20			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=100μA, I_C=0	3			V
Output Capacitance	Cob	V_{CB}=10V, f=1MHz		6.0		pF
Reverse Transfer Capacitance	Cre	V_{CB}=10V, f=1MHz		4.6		pF