Ordering number:EN3011

PNP Epitaxial Planar Silicon Transistor

2SA1682

TV Camera Deflection, High-Voltage Driver Applications

Features

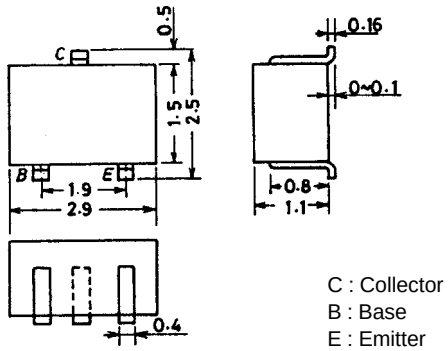
- High breakdown voltage (V_{CEO}≥300V).
- Small reverse transfer capacitance and excellent high frequency chacateristic (C_{re} : 1.5pF typ).
- Excellent DC current gain ratio (h_{FE} ratio : 1.0 typ).
- Adoption of FBET process.

Package Dimensions

unit:mm

2018A

[2SA1682]



C : Collector
B : Base
E : Emitter

SANYO : CP

Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		–300	V
Collector-to-Emitter Voltage	V_{CEO}		–300	V
Emitter-to-Base Voltage	V_{EBO}		–5	V
Collector Current	I_C		–50	mA
Collector Current (Pulse)	I_{CP}		–100	mA
Collector Dissipation	P_C		250	mW
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}=–200V, I_E=0			–0.1	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=–4V, I_C=0			–0.1	μA
DC Current Gain	$h_{FE}1$	V_{CE}=–6V, I_C=–0.1mA	100*		320*	
	$h_{FE}2$	V_{CE}=–6V, I_C=–1mA	100			
Gain-Bandwidth Product	f_T	V_{CE}=–30V, I_C=–10mA		70		MHz
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=–10mA, I_B=–1mA			–1.0	V
Base-to-Emitter Saturation Votlage	$V_{BE(sat)}$	I_C=–10mA, I_B=–1mA			–1.0	V

* : The 2SA1682 is classified by 0.1mA h_{FE} as follows :

100	4	200	160	5	320

Note : Marking : CS
h_{FE} rank : 4, 5

SANYO Electric Co.,Ltd. Semiconductor Bussiness Headquaters
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=–10μA, I_E=0	–300			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=–1mA, R_{BE}=∞	–300			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=–10μA, I_C=∞	–5			V
Output Capacitance	C_{ob}	V_{CB}=–30V, f=1MHz		2.4		pF
Reverse Transfer Capacitance	C_{re}	V_{CB}=–30V, f=1MHz		1.5		pF
DC Current Gain Ratio	h_{FE} ratio	$h_{FE}1/h_{FE}2$		1.0