Ordering number : ENN3019B

NPN Triple Diffused Planar Silicon Transistor

2SC4412

TV Camera Deflection High-Voltage Driver Applications

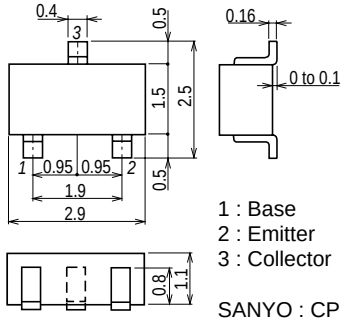
Features

- High breakdown voltage(V_{CEO}≥300V).
- Small reverse transfer capacitance and excellent high frequency characteristic(Cre : 1.0pF typ).
- Excellent DC current gain ratio(h_{FE} ratio : 0.95 typ).
- Adoption of FBET process.

Package Dimensions

unit : mm
2018B

[2SC4412]



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_{CE}=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			

Marking : QT

Continued on next page.

* : The 2SC4412 is classsified by 0.1mA h_{FE} as follows.

Rank	4	5
h_{FE}	100 to 200	160 to 320

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Continued from preceding page.

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gain-Bandwidth Product	f_T	V_{CE}=30V, I_C=10mA		70		MHz
Output Capacitance	Cob	V_{CB}=30V, f=1MHz		1.5		pF
Reverse Transfer Capacitance	Cre	V_{CB}=30V, f=1MHz		1.0		pF
DC Current Gain Ratio	h_{FE} ratio	$h_{FE}1$ / $h_{FE}2$		0.95		
Collector-to-Emitter Saturation Voltage	V_{CE}(sat)	I_C=10mA, I_B=1mA			1.0	V
Base-to-Emitter Saturation Voltage	V_{BE}(sat)	I_C=10mA, I_B=1mA			1.0	V
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_C=10μA, I_C=0	5			V