Ordering number : EN3218B

SANYO Semiconductors
DATA SHEET

PNP / NPN Epitaxial Planar Silicon Transistors

2SA1179 / 2SC2812 — Low-Frequency General-Purpose Amplifier Applications

Features

- Miniature package facilitates miniaturization in end products.
- High breakdown voltage.

Specifications ( ) : 2SA1179

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		(–)55	V
Collector-to-Emitter Voltage	V_{CEO}		(–)50	V
Emitter-to-Base Voltage	V_{EBO}		(–)5	V
Collector Current	I_C		(–)150	mA
Collector Current (Pulse)	I_{CP}		(–)300	mA
Base Current	I_B		(–)30	mA
Collector Dissipation	P_C		200	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}=(–)35V, I_E=0A			(–)0.1	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=(–)4V, I_C=0A			(–)0.1	μA
DC Current Gain	h_{FE}	V_{CE}=(–)6V, I_C=(–)1mA	135*		600*	
Gain-Bandwidth Product	f_T	2SC2812 : V_{CE}=6V, I_C=1mA		100		MHz
		2SA1179 : V_{CE}=–6V, I_C=–10mA		(180)		MHz

Marking: 2SA1179: M / 2SC2812: L

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*: The 2SA1179 / 2SC2812 are classified by 1mA h_{FE} as follws:

Rank	5	6	7
h_{FE}	135 to 270	200 to 400	300 to 600

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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Output Capacitance	Cob	V_{CB}=(-)6V, f=1MHz		(4.0)3.0		pF
Collector-to-Emitter Saturation Voltage	V_{CE}(sat)	I_C=(-)50mA, I_B=(-)5mA		(-0.15)0.1	(-)0.5	V
Base-to-Emitter Saturation Voltage	V_{BE}(sat)	I_C=(-)50mA, I_B=(-)5mA			(-)1.0	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=(-)10μA, I_E=0A	(-)55			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=(-)1mA, R_{BE}=∞	(-)50			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=(-)10μA, I_C=0A	(-)5			V

Package Dimensions

unit : mm (typ)

7013A-009