

**2SA1510**  
 2SC3900  
 查询"2SC3900"供应商



2018A

T-37-13  
 T-35-11  
 PNP/NPN Epitaxial Planar  
 Silicon Transistors

## Switching Applications

(with Bias Resistance  $R1=4.7k\Omega$ )

©2104A

### Applications

- Switching circuits, inverter circuits, interface circuits, driver circuits

### Features

- On-chip bias resistance:  $R1=4.7k\Omega$
- Small-sized package: CP

( ): 2SA1510

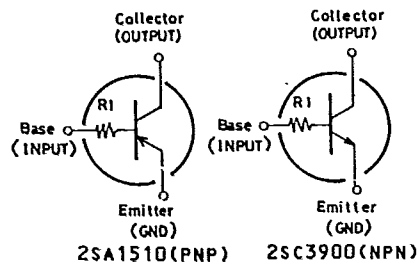
Absolute Maximum Ratings at $T_a=25^\circ\text{C}$		unit
Collector to Base Voltage	$V_{CB0}$	(-)50 V
Collector to Emitter Voltage	$V_{CEO}$	(-)50 V
Emitter to Base Voltage	$V_{EBO}$	(-)5 V
Collector Current	$I_C$	(-)100 mA
Peak Collector Current	$i_C$	(-)200 mA
Collector Dissipation	$P_{CP}$	200 mW
Junction Temperature	$T_j$	150 $^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to +150 $^\circ\text{C}$

Electrical Characteristics at $T_a=25^\circ\text{C}$		min	typ	max	unit
Collector Cutoff Current	$I_{CBO}$ $V_{CB} = (-)40\text{V}, I_E = 0$			(-)0.1	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$ $V_{EB} = (-)5\text{V}, I_C = 0$			(-)0.1	$\mu\text{A}$
DC Current Gain	$h_{FE}$ $V_{CE} = (-)5\text{V}, I_C = (-)10\text{mA}$	100			
Gain-Bandwidth Product	$f_T$ $V_{CE} = (-)10\text{V}, I_C = (-)5\text{mA}$		250 (200)		MHz
Output Capacitance	$c_{ob}$ $V_{CB} = (-)10\text{V}, f = 1\text{MHz}$		3.7 (5.5)		pF
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$ $I_C = (-)10\text{mA}, I_B = (-)0.5\text{mA}$		(-)0.1(-)0.3		V
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$ $I_C = (-)10\mu\text{A}, I_E = 0$	(-)50			V
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$ $I_C = (-)100\mu\text{A}, R_{BE} = \infty$	(-)50			V

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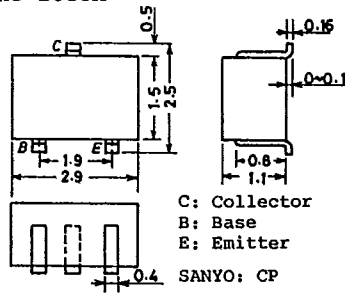
Marking: 2SA1510: KL, 2SC3900: SY

### Electrical Connection



### Case Outline 2018A

(unit:mm)

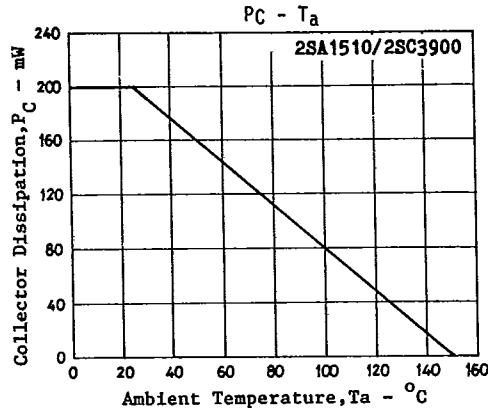
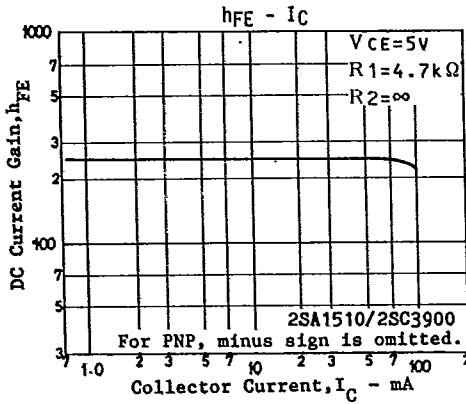
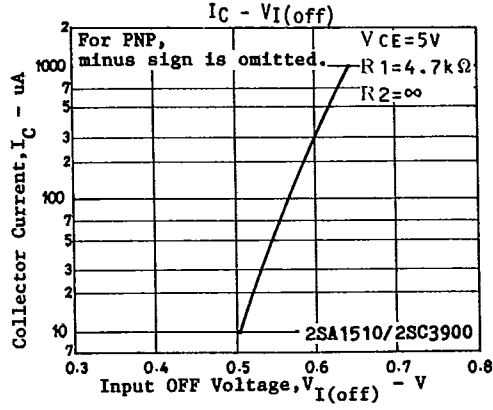
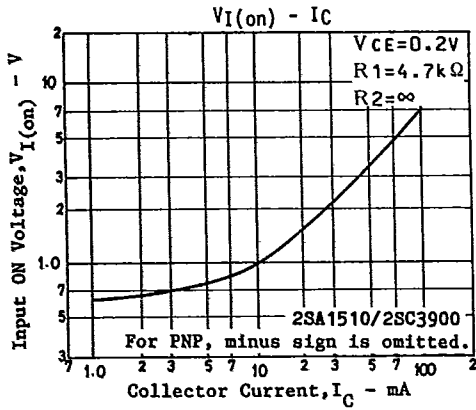


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			min	typ	max	unit
Input OFF-State Voltage	$V_{I(off)}$	$V_{CE} = (-)5V,$ $I_C = (-)100\mu A$	(-)0.4	(-)0.55	(-)0.8	V
Input ON-State Voltage	$V_{I(on)}$	$V_{CE} = (-)0.2V,$ $I_C = (-)10mA$	(-)0.6	(-)1.0	(-)2.0	V
Input Resistance	$R_I$		3.3	4.7	6.1	kohm

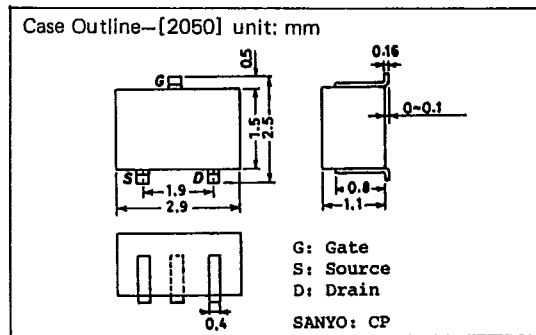
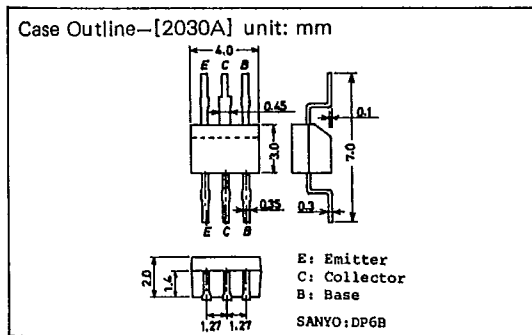
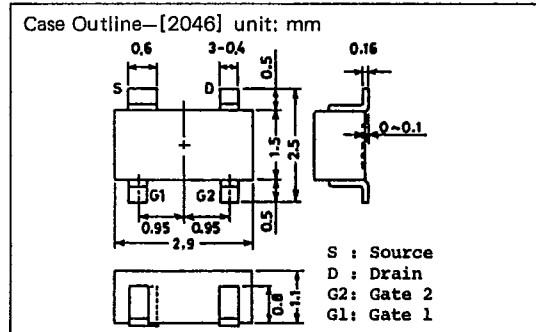
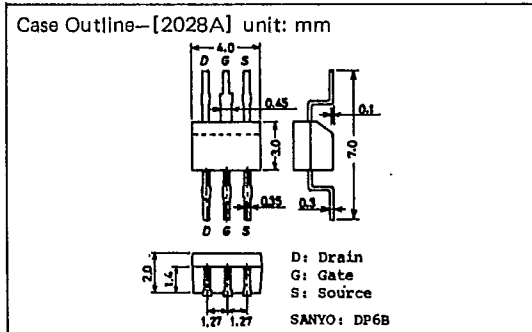
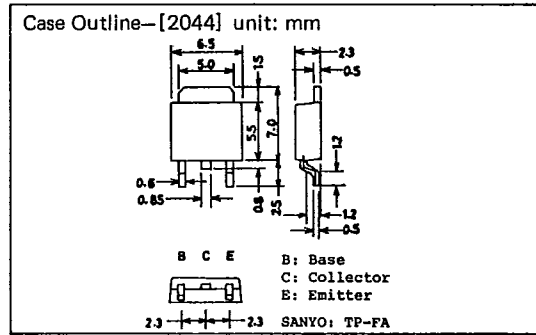
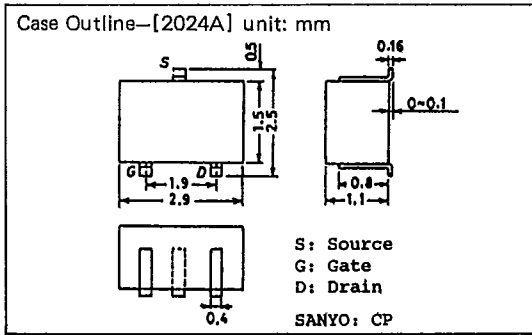
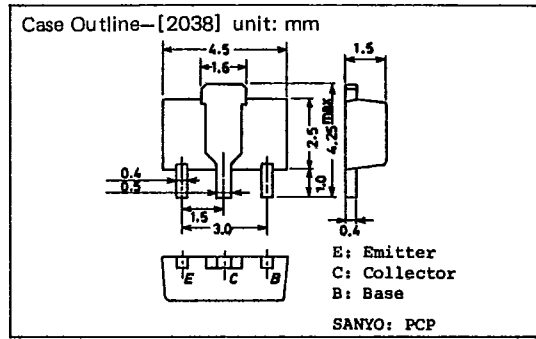
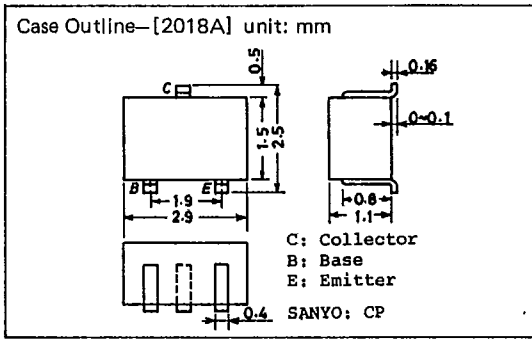


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# CASE OUTLINES OF SURFACE MOUNT TRANSISTORS

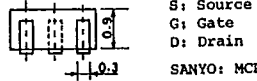
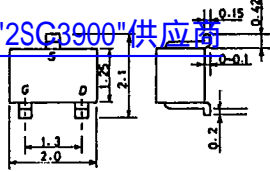
- All of Sanyo surface mount transistor case outlines are illustrated below.
- All dimensions are in mm, and dimensions which are not followed by min. or max. are represented by typical values.
- No marking is indicated.



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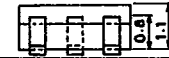
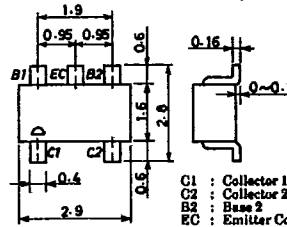
Case Outline—[2057] unit: mm

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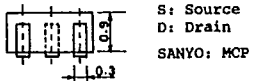
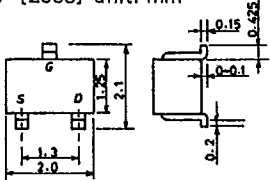
S: Source  
G: Gate  
D: Drain  
SANYO: MCP

Case Outline—[2066] unit: mm



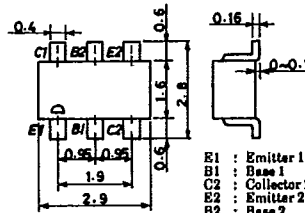
C1 : Collector 1  
C2 : Collector 2  
B2 : Base 2  
EC : Emitter Common  
B1 : Base 1  
SANYO: CP6

Case Outline—[2058] unit: mm



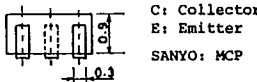
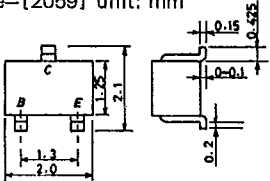
G: Gate  
S: Source  
D: Drain  
SANYO: MCP

Case Outline—[2067] unit: mm



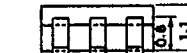
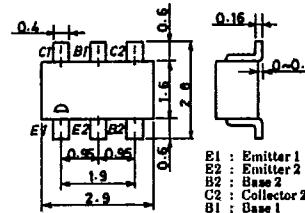
E1 : Emitter 1  
B1 : Base 1  
C2 : Collector 2  
E2 : Emitter 2  
B2 : Base 2  
C1 : Collector 1  
SANYO: CP6

Case Outline—[2059] unit: mm



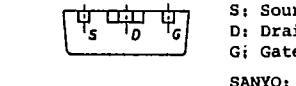
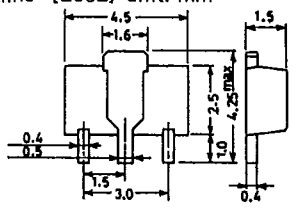
B: Base  
C: Collector  
E: Emitter  
SANYO: MCP

Case Outline—[2068] unit: mm



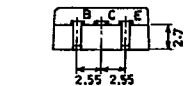
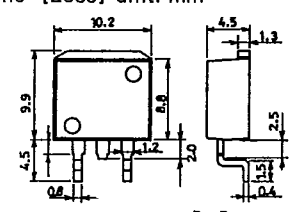
B1 : Emitter 1  
E2 : Emitter 2  
B2 : Base 2  
C2 : Collector 2  
B1 : Base 1  
C1 : Collector 1  
SANYO: CP6

Case Outline—[2062] unit: mm



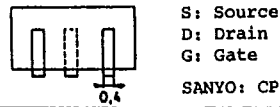
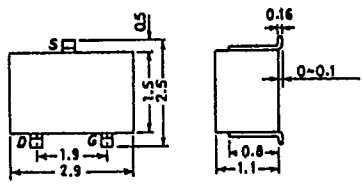
S: Source  
D: Drain  
G: Gate  
SANYO: PCP

Case Outline—[2069] unit: mm



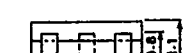
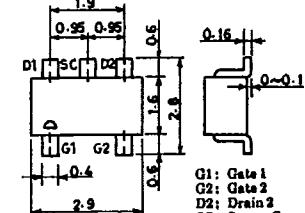
B: Base  
C: Collector  
E: Emitter  
SANYO: SMP

Case Outline—[2065] unit: mm



S: Source  
D: Drain  
G: Gate  
SANYO: CP

Case Outline—[2070] unit: mm

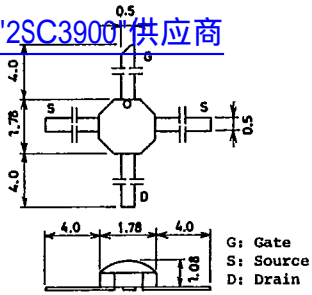


G1 : Gate 1  
G2 : Gate 2  
D2 : Drain 2  
SC : Source Common  
D1 : Drain 1  
SANYO: CP6

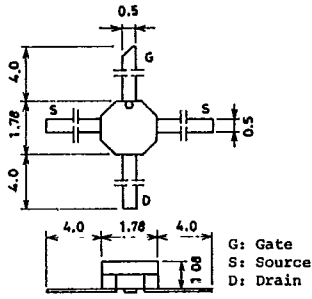
T-9120

Case Outline-[2071] unit: mm

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Case Outline-[2072] unit: mm



Case Outline-[2073] unit: mm

