

SOT-23 Formed SMD Package

CSC2712

SILICON PLANAR EPITAXIAL TRANSISTOR

N-P-N transistor

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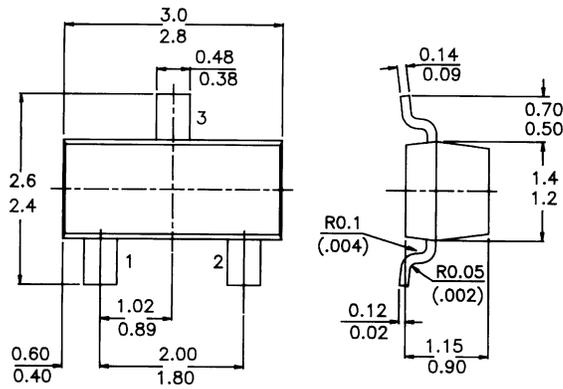
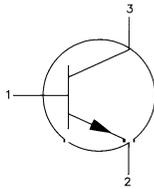
Marking

CSC2712Y=1E
CSC2712GR(G)=1F
CSC2712BL(L)=1G

PACKAGE OUTLINE DETAILS
ALL DIMENSIONS IN mm

Pin configuration

1 = BASE
2 = EMITTER
3 = COLLECTOR



ABSOLUTE MAXIMUM RATINGS

Collector-base voltage (open emitter)
Collector-emitter voltage (open base)
Emitter-base voltage (open collector)
Collector current (peak value)
Total power dissipation at $T_{amb} = 25^{\circ}C$
Junction temperature
D.C. current gain
 $-I_C = 2 \text{ mA}; -V_{CE} = 6V$

V_{CBO} max. 60 V
 V_{CEO} max. 50 V
 V_{EBO} max. 5 V
 I_C max. 150 mA
 P_{tot} max. 150 mW
 T_j max. 150 °C
 h_{FE} min. 70
max. 700

Transition frequency

$I_C = 1 \text{ mA}; V_{CE} = 10 \text{ V}$
Noise figure at $R_S = 10 \text{ K}\Omega$
 $I_C = 0.1 \text{ mA}; V_{CE} = 6V;$
 $f = 1 \text{ kHz}$

f_T min. 80 MHz
 F max 10 dB

RATINGS (at $T_A = 25^\circ\text{C}$ unless otherwise specified)

Limiting values

Collector-base voltage (open emitter)	V_{CB0}	max.	60 V
Collector-emitter voltage (open base)	V_{CEO}	max.	50 V
Emitter-base voltage (open collector)	V_{EBO}	max.	5 V
Collector current (d.c.)	I_C	max.	150 mA
Base current	I_B	max.	30 mA
Total power dissipation at $T_{amb} = 25^\circ\text{C}$	P_{tot}	max.	150 mW
Junction temperature	T_j	max.	150 °C
Storage temperature	T_{stg}		-50 to +150 °C

CHARACTERISTICS (at $T_A = 25^\circ\text{C}$ unless otherwise specified)

Collector cut-off current

$I_E = 0; V_{CB} = 60\text{ V}$	I_{CBO}	max.	100 nA
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Emitter cut-off current

$I_C = 0; V_{EB} = 5\text{ V}$	I_{EBO}	max.	100 nA
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Saturation voltage

$I_C = 100\text{ mA}; I_B = 10\text{ mA}$	V_{CEsat}	max.	250 mV
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D.C. current gain

$I_C = 2\text{ mA}; V_{CE} = 6\text{ V}$	h_{FE}	min.	70
		max.	700
	Y	min.	120
		max.	240
	$GR(G)$	min.	200
		max.	400
	$BL(L)$	min.	350
		max.	700

Transition frequency

$I_C = 1\text{ mA}; V_{CE} = 10\text{ V}$	f_T	min.	80 MHz
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Noise figure at $R_g = 10\text{ k}\Omega$

$V_{CE} = 6\text{ V}; I_C = 0.1\text{ mA}$	N_F	max.	10 dB
$f = 1\text{ kHz}$			

Notes

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Disclaimer

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