Silicon NPN Epitaxial

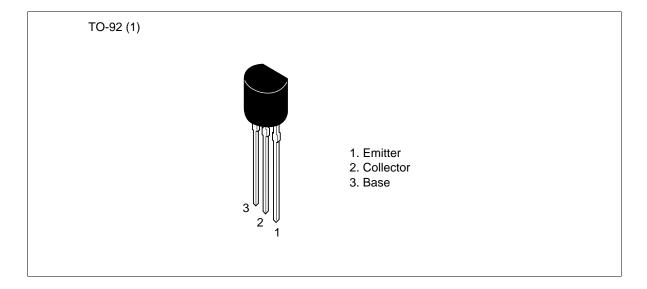
HITACHI

ADE-208-1048 (Z) 1st. Edition Mar. 2001

Application

- Low frequency amplifier
- Complementary pair with 2SA673 and 2SA673A

Outline





Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	2SC1213	2SC1213A	Unit
Collector to base voltage	V_{CBO}	35	50	V
Collector to emitter voltage	V_{CEO}	35	50	V
Emitter to base voltage	V_{EBO}	4	4	V
Collector current	I _c	500	500	mA
Collector power dissipation	P _c	400	400	mW
Junction temperature	Tj	150	150	°C
Storage temperature	Tstg	-55 to +150	-55 to +150	°C

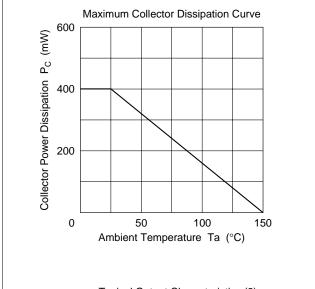
Electrical Characteristics ($Ta = 25^{\circ}C$)

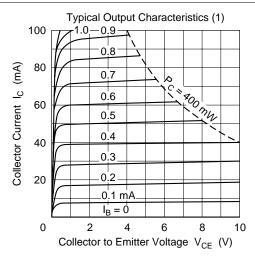
		2SC1	213		2SC1213A				
Item	Symbol	Min	Тур	Max	Min	Тур	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	35	_	_	50	_	_	V	$I_{\rm C} = 10 \ \mu \text{A}, \ I_{\rm E} = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	35	_	_	50	_	_	٧	$I_{\rm C}$ = 1 mA, $R_{\rm BE}$ = ∞
Emitter to base breakdown voltage	$V_{(BR)EBO}$	4	_	_	4	_	_	V	$I_E = 10 \mu A, I_C = 0$
Collector cutoff current	I _{CBO}	_	_	0.5	_	_	0.5	μΑ	$V_{CB} = 20 \text{ V}, I_{E} = 0$
DC current tarnsfer ratio	h _{FE} *1	60	_	320	60	_	320		$V_{CE} = 3 \text{ V}, I_{C} = 10 \text{ mA}$
	h _{FE}	10	_	_	10	_	_		$V_{CE} = 3 \text{ V},$ $I_{C} = 500 \text{ mA}^{*2}$
Collector to emitter saturation voltage	$V_{\text{CE(sat)}}$	_	0.2	0.6	_	0.2	0.6	V	$I_{\rm C}$ = 150 mA, $I_{\rm B}$ = 15 mA* ²
Base to emitter voltage	V_{BE}	_	0.64	_	_	0.64	_	V	$V_{CE} = 3 \text{ V}, I_{C} = 10 \text{ mA}$

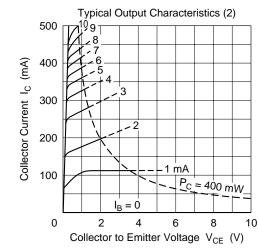
Notes: 1. The 2SC1213 and 2SC1213A are grouped by h_{FE} as follows.

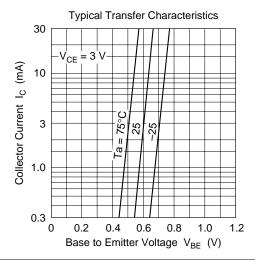
2. Pulse test

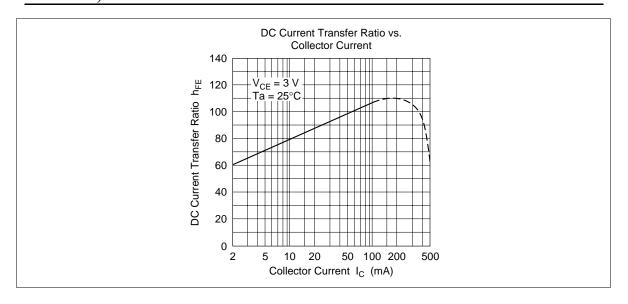
В	С	D
60 to 120	100 to 200	160 to 320



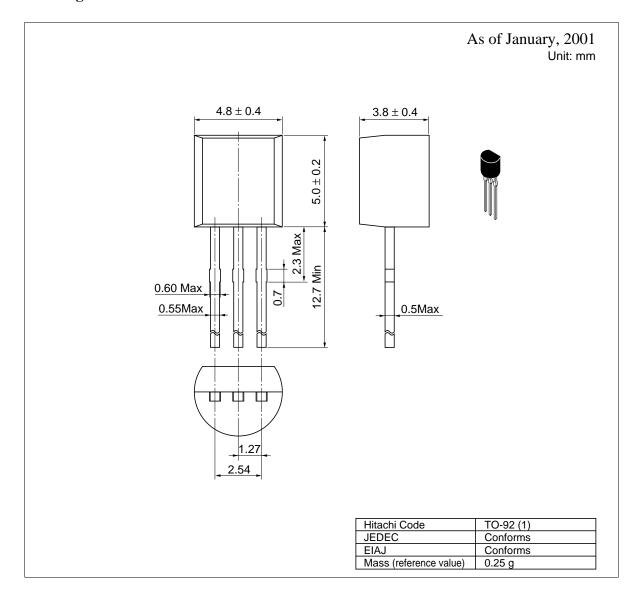








Package Dimensions



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