

Transistors

# Low frequency transistor (for amplification)

## 2SD2696

●Structure

NPN Silicon Epitaxial Planar Transistor

●Features

- 1) The transistor of 400mA class which went only with 2012 size conventionally is attained in 1208 size.
- 2) Collector saturation voltage is low.  
 $V_{CE(sat)}$  : max. 300mV at  $I_C = 100mA / I_B = 2mA$

●Applications

Switching

●Packaging specifications

Type	Package	Taping
	Code	T2L
	Basic ordering unit (pieces)	8000
2SD2696		○

●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	$V_{CBO}$	30	V
Collector-emitter voltage	$V_{CEO}$	30	V
Emitter-base voltage	$V_{EBO}$	6	V
Collector current	$I_C$	400	mA
	$I_{CP}$ *1	800	mA
Power dissipation	$P_D$ *2	150	mW / TOTAL
Junction temperature	$T_j$	150	°C
Range of storage temperature	$T_{stg}$	-55 to +150	°C

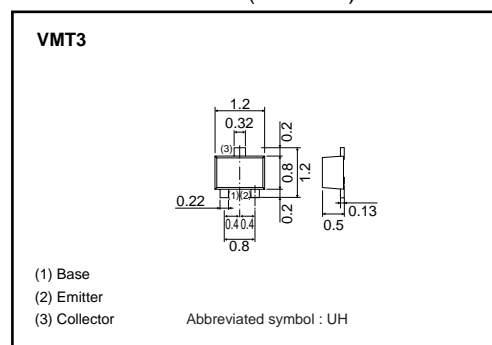
\*1  $P_w=10ms$ , Single pulse

\*2 Each terminal mounted on a recommended land.

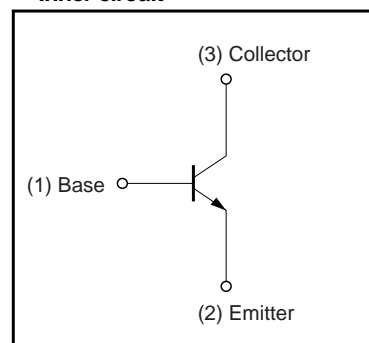
●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-emitter breakdown voltage	$BV_{CEO}$	30	-	-	V	$I_C=1mA$
Collector-base breakdown voltage	$BV_{CBO}$	30	-	-	V	$I_C=10\mu A$
Emitter-base breakdown voltage	$BV_{EBO}$	6	-	-	V	$I_E=10\mu A$
Collector cut-off current	$I_{CBO}$	-	-	100	nA	$V_{CB}=30V$
Emitter cut-off current	$I_{EBO}$	-	-	100	nA	$V_{EB}=6V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	120	300	mV	$I_C=100mA, I_B=2mA$
DC current gain	$h_{FE}$	270	-	680	-	$V_{CE}=2V, I_C=100mA$
Transition frequency	$f_T$	-	400	-	MHz	$V_{CE}=2V, I_E=-100mA, f=100MHz$
Output capacitance	$C_{ob}$	-	3.0	-	pF	$V_{CB}=10V, I_E=0A, f=1MHz$

●External dimensions (Unit : mm)



●Inner circuit



## Appendix

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