

FMG12 Emitter common (dual digital transistors)

FMG12

●Features

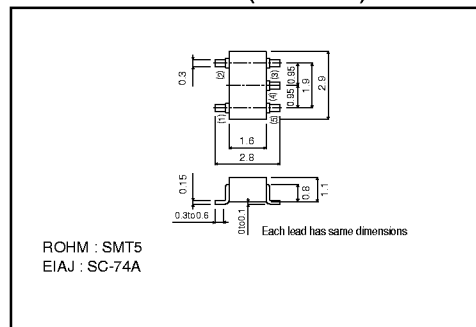
- 1) Includes two DTC323T transistors in a single SMT package.
- 2) Low $V_{CE(sat)}$. Ideal for muting circuit.
- 3) Can be used with $I_c = 600$ mA.

●Absolute maximum ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CB0}	30	V
Collector-emitter voltage	V_{CE0}	15	V
Emitter-base voltage	V_{EB0}	5	V
Collector current	I_c	600	mA
Collector power dissipation	P_c	300 (TOTAL)	mW *
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55~+150	$^\circ\text{C}$

* 200mW per element must not be exceeded.

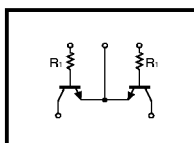
●External dimensions (Units : mm)



●Packaging specifications and hFE

Part No.	FMG12
Package	SMT5
Marking	G12
Code	T108
Basic ordering unit (pieces)	3000

●Circuit diagram



●Electrical characteristics ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CB0}	30	-	-	V	$I_c=50\mu\text{A}$
Collector-emitter breakdown voltage	BV_{CE0}	15	-	-	V	$I_c=1\text{mA}$
Emitter-base breakdown voltage	BV_{EB0}	5	-	-	V	$I_E=50\mu\text{A}$
Collector cutoff current	I_{cbo}	-	-	0.5	μA	$V_{CB}=20\text{V}$
Emitter cutoff current	I_{ebo}	-	-	0.5	μA	$V_{EB}=4\text{V}$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	0.04	0.08	V	$I_c/I_E=50\text{mA}/2.5\text{mA}$
DC current transfer ratio	h_{FE}	100	250	600	-	$V_{CE}=5\text{V}$, $I_c=50\text{mA}$ *1
Transition frequency	f_T	-	200	-	MHz	$V_{CE}=10\text{V}$, $I_E=-50\text{mA}$, $f=100\text{MHz}$ *2
Output ON resistance	R_{on}	-	0.55	-	Ω	$V_i=7\text{V}$, $R_i=1\text{k}\Omega$, $f=1\text{kHz}$
Input resistance	R_i	1.54	2.2	2.86	$\text{k}\Omega$	-

*1 Measured using pulse current *2 Transition frequency of mounted transistor