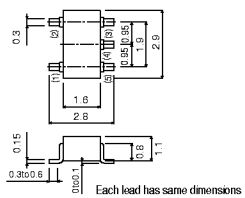
FMG12 Emitter common (dual digital transistors)

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 Ic = 600 mA.

●External dimensions (Units : mm)



ROHM : SMT5
EIAJ : SC-74A

●Absolute maximum ratings (Ta = 25°C)

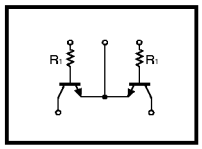
Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	30	V
Collector-emitter voltage	V_{CEO}	15	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	600	mA
Collector power dissipation	Pc	300 (TOTAL)	mW *
Junction temperature	Tj	150	°C
Storage temperature	Tstg	−55~+150	°C

* 200mW per element must not be exceeded.

●Packaging specifications and h_{FE}

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

●Circuit diagram



●Electrical characteristics (Ta = 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	30	-	-	V	I_C=50μA
Collector-emitter breakdown voltage	BV_{CEO}	15	-	-	V	I_C=1mA
Emitter-base breakdown voltage	BV_{EBO}	5	-	-	V	I_E=50μA
Collector cutoff current	I_{CBO}	-	-	0.5	μA	V_{CB}=20V
Emitter cutoff current	I_{EBO}	-	-	0.5	μA	V_{EB}=4V
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	0.04	0.08	V	I_C/I_B=50mA/2.5mA
DC current transfer ratio	h_{FE}	100	250	600	-	V_{CE}=5V , I_C=50mA *1
Transition frequency	f_T	-	200	-	MHz	V_{CE}=10V , I_E=−50mA , f=100MHz *2
Output ON resistance	Ron	-	0.55	-	Ω	V_I=7V , R_L=1kΩ , f=1kHz
Input resistance	R_1	1.54	2.2	2.86	kΩ	-

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