

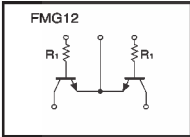
Emitter common(dual digital transistors)

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

●Circuit diagram



●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	P_c	300 (TOTAL)	mW *
Junction temperature	T_J	150	°C
Storage temperature	T_{stg}	-55~+150	°C

* 200mW per element must not be exceeded.

●Package, marking, and packaging specifications

Part No.	FMG12
Package	SMT6
Marking	G12
Code	T108
Basic ordering unit (pieces)	3000

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	30	—	—	V	$I_c=50 \mu A$
Collector-emitter breakdown voltage	BV_{CEO}	15	—	—	V	$I_c=1 mA$
Emitter-base breakdown voltage	BV_{EBO}	5	—	—	V	$I_e=50 \mu A$
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	$I_c/I_e=50mA/2.5mA$
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	R_{on}	—	0.55	—	Ω	$V_I=7V, R_L=1k\Omega, f=1kHz$
Input resistance	R_I	1.54	2.2	2.86	k Ω	—

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

(96-417-C323T)

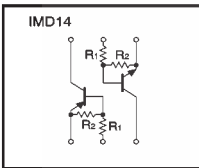
General purpose (dual digital transistors)

IMD14

●Features

- 1) Two 500 mA digital transistor chips in a SMT package.
- 2) The drive transistors are independent, eliminating interference.

●Circuit diagram



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	V_{CC}	50	V
Input voltage	V_{IN}	5 -5	V
Output current	I_c	500	mA
Power dissipation	P_d	300 (TOTAL)	mW *
Junction temperature	T_J	150	°C
Storage temperature	T_{stg}	-55~+150	°C

* 200mW per element must not be exceeded. PNP type negative symbols have been omitted.

●Package, marking, and packaging specifications

Part No.	IMD14
Package	SMT6
Marking	D14
Code	T108
Basic ordering unit (pieces)	3000

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Input voltage	V_I (left)	—	—	0.3	V	$V_{CC}=5V, I_o=100 \mu A$ $V_O=0.3V, I_o=1mA$
	V_I (on)	1.1	—	—		
Output voltage	V_O (on)	—	—	0.3	V	$I_o/I_l=100mA/5mA$
Input current	I_I	—	—	17	mA	$V_I=3V$
Output current	I_o (left)	—	—	0.5	μA	$V_{CC}=50V, V_I=0V$
DC current gain	G_I *1	82	—	—	—	$I_o=100mA, V_O=5V$ *1
Transition frequency	f_T *2	—	250	—	MHz	$V_{CE}=10V, I_E=-50mA, f=100MHz$ *2
Input resistance	R_I	154	220	286	Ω	—
Resistance ratio	R_2/R_1	36.3	45.5	54.6	—	—

*1 Measured using pulse current *2 Transition frequency of the device
PNP type negative symbols have been omitted.