

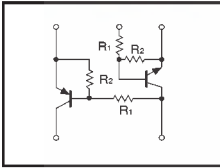
Power management (dual digital transistors)

FMC6A

●Features

- 1) Both the DTA115E and DTC115E chips in a SMT package.

●Circuit diagram



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	V _{CC}	50	V
Input voltage	V _{IN}	40	V
		-10	
Output current	I _C	100	mA
	I _O	20	
Power dissipation	P _d	300 (TOTAL)	mW
Storage temperature	T _{stg}	-55~+150	°C

PNP type negative symbols have been omitted.

●Package, marking, and packaging specifications

Part No.	FMC6A
Package	SMT5
Marking	C6
Code	T148
Basic ordering unit (pieces)	3000

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Input voltage	V _{I(on)}	—	—	0.5	V	V _{CC} =5/-5V, I _C =100/-100 μA
	V _{I(off)}	3	—	—		V _O =0.3/-0.3V, I _C =1/-1mA
Output voltage	V _{O(on)}	—	0.1	0.3	V	I _C =5/-5mA, I _I =0.25/-0.25mA
Input current	I _I	—	—	0.15	mA	V _I =5/-5V
Output current	I _{O(off)}	—	—	0.5	μA	V _{CC} =50/-50V
DC current gain	G _I	82	—	—	—	I _O =5/-5mA, V _O =5/-5V
Transition frequency	f _T	—	250	—	MHz	V _{CE} =10V/-10V, I _E =-5mA/5mA, f=100MHz *
Input resistance	R _I	70	100	130	kΩ	—
Resistance ratio	R ₂ /R ₁	0.8	1	1.2	—	—

*Transition frequency of mounted transistor. PNP type negative symbols have been omitted.

(94S-830-AC115E)

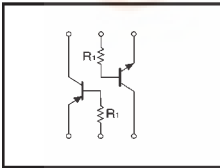
Power management (dual digital transistors)

IMD1A

●Features

- 1) Both the DTA124T and DTC124T chips in a SMT package.

●Circuit diagram



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V _{CE0}	50	V
Collector-emitter voltage	V _{CEO}	50	V
Emitter-base voltage	V _{EB0}	5	V
Collector current	I _C	100	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. PNP type negative symbols have been omitted.

●Package, marking, and packaging specifications

Type	IMD1A
Package	SMT6
Marking	D1
Code	T108
Basic ordering unit (pieces)	3000

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV _{CE0}	50	—	—	V	I _C =50 μA
Collector-emitter breakdown voltage	BV _{CEO}	50	—	—	V	I _C =1mA
Emitter-base breakdown voltage	BV _{EB0}	5	—	—	V	I _E =50 μA
Collector cutoff current	I _{CO}	—	—	0.5	μA	V _{CB} =50V
Emitter cutoff current	I _{EO}	—	—	0.5	μA	V _{EB} =4V
Collector-emitter saturation voltage	V _{CE(sat)}	—	—	0.3	V	I _C /I _E =5mA/0.5mA
DC current transfer ratio	h _{FE}	100	250	600	—	V _{CE} =5V, I _C =1mA
Transition frequency	f _T	—	250	—	MHz	V _{CE} =10V, I _E =-5mA, f=100MHz *
Input resistance	R _I	15.4	22	28.6	kΩ	—

* Transition frequency of mounted transistor. PNP type negative symbols have been omitted.

