

Power management (dual digital transistors)

IMD1A

●Features

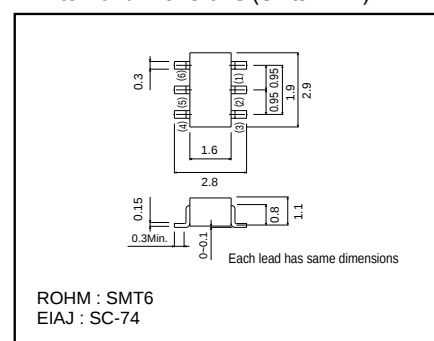
1) Both the DTA124T chip and DTC124T chip in a SMT package.

●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V _{CB0}	50	V
Collector-emitter voltage	V _{CE0}	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.

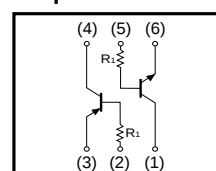
●External dimensions (Units : mm)



●Package, marking, and packaging specifications

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

●Equivalent circuit



●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV _{CB0}	50	—	—	V	I _C =50μA
Collector-emitter breakdown voltage	BV _{CE0}	50	—	—	V	I _C =1mA
Emitter-base breakdown voltage	BV _{EB0}	5	—	—	V	I _E =50μA
Collector cutoff current	I _{CB0}	—	—	0.5	μA	V _{CB} =50V
Emitter cutoff current	I _{EB0}	—	—	0.5	μA	V _{EB} =4V
Collector-emitter saturation voltage	V _{CE(sat)}	—	—	0.3	V	I _C /I _B =5mA/0.5mA
DC current transfer ratio	h _{FE}	100	250	600	—	V _{CE} =5V, I _C =1mA
Transition frequency	f _r	—	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.