

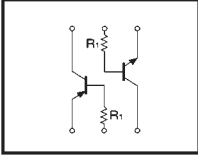
Power management (dual digital transistors)

IMD8A

●Features

- 1) Both the DTA144T chip and DTC144T chip in a SMT package.

●Circuit diagram



●Absolute maximum ratings (Ta=25℃)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V _{ceo}	50	V
Collector-emitter voltage	V _{ceo}	50	V
Emitter-base voltage	V _{ebo}	5	V
Collector current	I _c	100	mA
Collector power dissipation	P _c	300 (TOTAL)	mW *
Storage temperature	T _{stg}	-55~+150	℃

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

●Package, marking, and packaging specifications

Part No.	IMD8A
Package	SMT6
Marking	D8
Code	T108
Basic ordering unit (pieces)	3000

●Electrical characteristics (Ta=25℃)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV _{ceo}	50	—	—	V	I _c =50 μA
Collector-emitter breakdown voltage	BV _{ceo}	50	—	—	V	I _c =1mA
Emitter-base breakdown voltage	BV _{ebo}	50	—	—	V	I _e =50 μA
Collector cutoff current	I _{cbo}	—	—	0.5	μA	V _{ce} =50V
Emitter cutoff current	I _{ebo}	—	—	0.5	μA	V _{es} =4V
Collector-emitter saturation voltage	V _{CE(sat)}	—	—	0.3	V	I _c =5mA, I _e =0.5mA
DC current transfer ratio	h _{FE}	100	250	600	—	V _{ce} =5V, I _c =1mA
Input resistance	R _i	32.9	47	61.1	kΩ	—

PNP type negative symbols have been omitted.

(94S-902-AC144T)

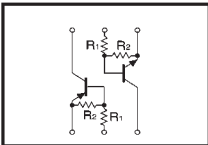
Power management (dual digital transistors for inverter drive)

IMD9A

●Features

- 1) Both the DTA114Y chip and DTC114Y chip in a SMT package.

●Circuit diagram



●Absolute maximum ratings (Ta=25℃)

Parameter	Symbol	Limits	Unit
Supply voltage	V _{cc}	50	V
Input voltage	V _{IN}	-6~+40	V
Output current	I _o	70	mA
Collector current	I _{c(Max.)}	100	mA
Power dissipation	P _d	300 (TOTAL)	mW *
Storage temperature	T _{stg}	-55~+150	℃

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

●Package, marking, and packaging specifications

Part No.	IMD9A
Package	SMT6
Marking	D9
Code	T108
Basic ordering unit (pieces)	3000

●Electrical characteristics (Ta=25℃)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Input voltage	V _{I(off)}	—	—	0.3	V	V _{cc} =5V, I _o =100 μA
	V _{I(on)}	1.4	—	—	V	V _o =0.3V, I _i =1mA
Output voltage	V _{O(on)}	—	0.1	0.3	V	I _o =5mA, I _i =0.25mA
Input current	I _i	—	—	0.88	mA	V _i =5V
Output current	I _{O(off)}	—	—	0.5	μA	V _{cc} =50V, V _i =0V
DC current gain	G _i	68	—	—	—	I _o =5mA, V _o =5V
Input resistance	R _i	7	10	13	kΩ	—
Resistance ratio	R ₂ /R ₁	3.7	4.7	5.7	—	—

PNP type negative symbols have been omitted.

(94S-904-AC114Y)