

Transistors

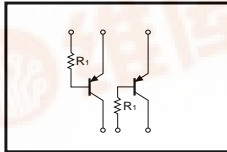
# General purpose (dual digital transistors)

## IMB7A

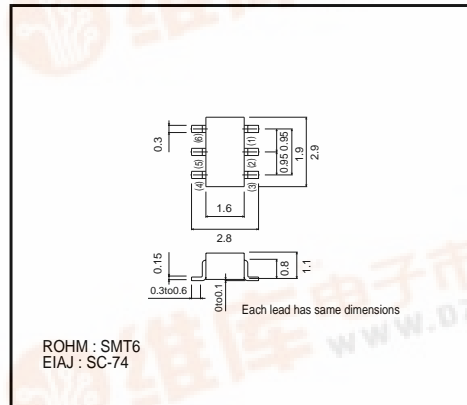
●Features

- 1) Two DTA143T chips in a SMT package.

●Circuit diagram



●External dimensions (Units : mm)



●Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V <sub>CB0</sub>	-50	V
Collector-emitter voltage	V <sub>CE0</sub>	-50	V
Emitter-base voltage	V <sub>EB0</sub>	-5	V
Collector current	I <sub>c</sub>	-100	mA
Collector power dissipation	P <sub>c</sub>	300(TOTAL)	mW *
Junction temperature	T <sub>J</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55~+150	°C

\* 200mW per element must not be exceeded.

●Package, marking, and packaging specifications

Type	IMB7A
Package	SMT6
Marking	B7
Code	T110
Basic ordering unit (pieces)	3000

●Electrical characteristics (Ta = 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV <sub>CB0</sub>	-50	-	-	V	I <sub>c</sub> =-50μA
Collector-emitter breakdown voltage	BV <sub>CE0</sub>	-50	-	-	V	I <sub>c</sub> =-1mA
Emitter-base breakdown voltage	BV <sub>EB0</sub>	-5	-	-	V	I <sub>e</sub> =-50μA
Collector cutoff current	I <sub>cBO</sub>	-	-	-0.5	μA	V <sub>CB</sub> =-50V
Emitter cutoff current	I <sub>eBO</sub>	-	-	-0.5	μA	V <sub>EB</sub> =-4V
DC current transfer ratio	h <sub>FE</sub>	100	250	600	-	V <sub>CE</sub> /I <sub>C</sub> =-5V/-1mA
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	-	-	-0.3	V	I <sub>c</sub> /I <sub>e</sub> =-5mA/-0.25mA
Input resistance	R <sub>i</sub>	3.29	4.7	6.11	kΩ	-