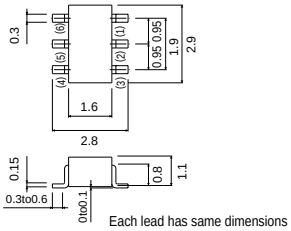
Digital Transistor
(Dual Digital Transistors for Inverter Drive)
IMD8A

●**Features**

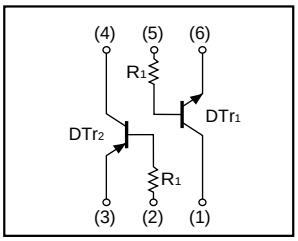
1) Both the DTA144T chip and DTC144T chip in a SMT package.

●**External dimensions** (Unit : mm)



ROHM : SMT6
EIAJ : SC-74

●**Circuit diagram**



R_1=47kΩ

●**Package, marking, and packaging specifications**

Type	IMD8A
Package	SMT6
Marking	D8
Code	T108
Basic ordering unit (pieces)	3000

●**Absolute maximum ratings** (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	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	Pc	300(TOTAL)	mW ∗
Junction temperature	Tj	150	°C
Storage temperature	Tstg	−55 to +150	°C

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

●**Electrical characteristics** (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	50	–	–	V	I_C=50μA
Collector-emitter breakdown voltage	BV_{CEO}	50	–	–	V	I_C=1mA
Emitter-base breakdown voltage	BV_{EBO}	5	–	–	V	I_E=50μA
Collector cutoff current	I_{CBO}	–	–	0.5	μA	V_{CB}=50V
Emitter cutoff current	I_{EBO}	–	–	0.5	μA	V_{EB}=4V
Collector-emitter saturation voltage	$V_{CE(sat)}$	–	–	0.3	V	I_C=5mA , I_B=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_1	32.9	47	61.1	kΩ	–

PNP type negative symbols have been omitted.
∗Characteristics of bult-in transistor.

●Electrical characteristic curves

DTr1

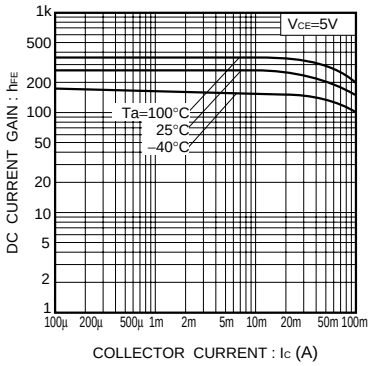


Fig.1 DC current gain vs. collector current

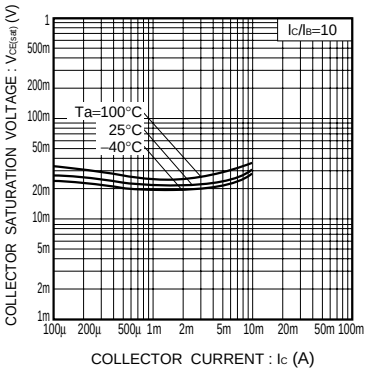


Fig.2 Collector-emitter saturation voltage vs. collector current

DTr2

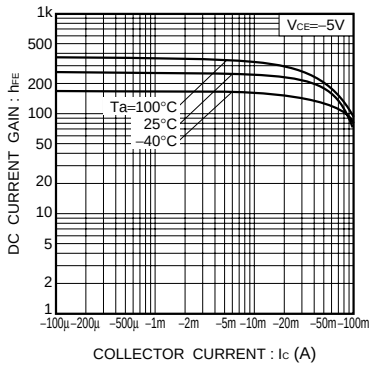


Fig.3 DC current gain vs.collector current

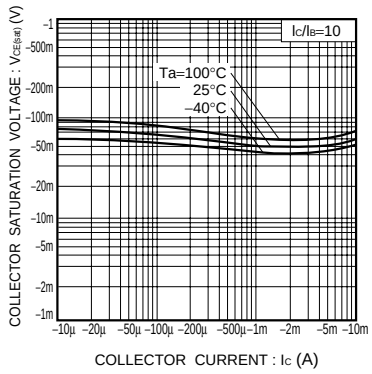


Fig.4 Collector-emitter saturation voltage vs.collector current

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