

Transistors

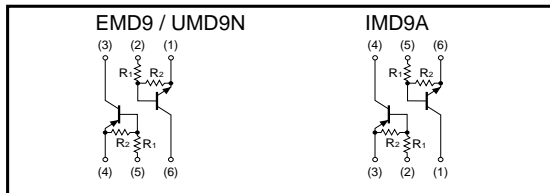
Digital Transistor (Dual Digital Transistors for Inverter Drive)

EMD9 / UMD9N / IMD9A

●Features

1) DTA114Y and DTC114Y transistors are built-in a EMT or UMT or SMT package.

●Equivalent circuit



●Package, marking, and packaging specifications

Type	EMD9	UMD9N	IMD9A
Package	EMT6	UMT6	SMT6
Marking	D9	D9	D9
Code	T2R	TR	T108
Basic ordering unit (pieces)	8000	3000	3000

●Absolute maximum ratings (Ta=25°C)

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	EMD9, UMD9N	150(TOTAL)	mW *1
	IMD9A	300(TOTAL)	mW *2
Storage temperature	T _{stg}	-55~+150	°C

*1 120mW per element must not be exceeded. PNP type negative symbols have been omitted.
*2 200mW per element must not be exceeded. PNP type negative symbols have been omitted.

●External dimensions (Units : mm)

EMD9

Each lead has same dimensions

ROHM : EMT6
Abbreviated symbol : D9

UMD9N

Each lead has same dimensions

ROHM : UMT6
EIAJ : SC-88

Abbreviated symbol : D9

IMD9A

Each lead has same dimensions

ROHM : SMT6
EIAJ : SC-74

Abbreviated symbol : D9

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Input voltage	V _{I(eff)}	-	-	0.3	V	V _{CC} =5V, I _O =100mA
	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(eff)}	-	-	0.5	mA	V _{CC} =50V, V _I =0V
DC current gain	G _I	68	-	-	-	I _O =5mA, V _O =5V
Input resistance	R ₁	7	10	13	kΩ	-
Resistance ratio	R ₂ /R ₁	3.7	4.7	5.7	-	-

PNP type negative symbols have been omitted.