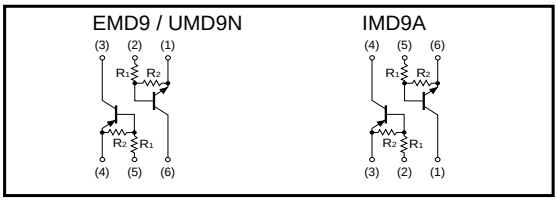
Digital Transistor
(Dual Digital Transistors for Inverter Drive)

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

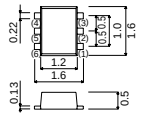
●Absolute maximum ratings (Ta=25°C)

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	Pd	150(TOTAL)	mW	∗1
	IMD9A		300(TOTAL)	mW	∗2
Storage temperature		Tstg	-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)

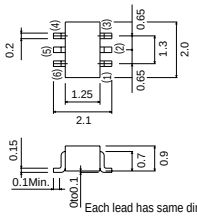
EMD9



ROHM : EMT6

Abbreviated symbol : D9

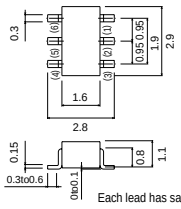
UMD9N



ROHM : UMT6
EIAJ : SC-88

Abbreviated symbol : D9

IMD9A



ROHM : SMT6
EIAJ : SC-74

Abbreviated symbol : D9

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Input voltage	$V_{I(off)}$	-	-	0.3	V	V_{CC}=5V , I_O=100mA
	$V_{I(on)}$	1.4	-	-		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	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	kW	-
Resistance ratio	R_2/R_1	3.7	4.7	5.7	-	-

PNP type negative symbols have been omitted.