

Digital Transistors

Two transistors with built-in resistors (digital transistors) are packed into UM5 and FMT type packages. Being wired internally they require minimum space.

UM5 (Suffix N) • FMT (5 pin type including 2 circuits)

● Built-in 2 resistors

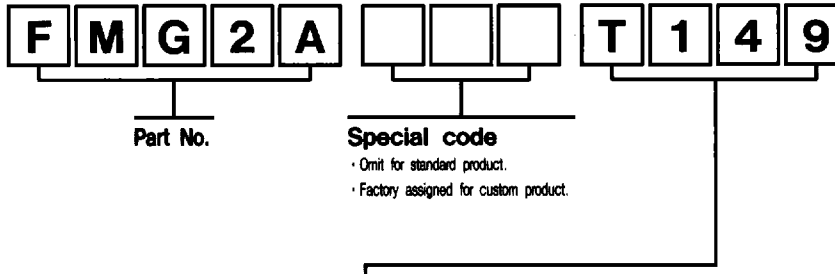
Equivalent circuit		Application	Package		Equivalent product	Resistance value		V _{CC} (V)	I _o (mA)	G _I	I _o (mA)	
TOP VIEW			UM5	FMT		R ₁ (kΩ)	R ₂ (kΩ)				V _o (V)	I _o (mA)
UM5	FMT		Part No.									
		Inverter Driver	UMA1N	FMA1A	DTA124EKA × 2	22	22	-50	-30	56~	-5	-5
			UMA2N	FMA2A	DTA144EKA × 2	47	47	-50	-30	68~	-5	-5
			UMA5N	FMA5A	DTA123JKA × 2	2.2	47	-50	-100	80~	-5	-10
			UMA7N	FMA7A	DTA143XKA × 2	4.7	10	-50	-100	30~	-5	-10
			UMA8N	FMA8A	DTA114YKA × 2	10	47	-50	-100	68~	-5	-5
			UMA9N	FMA9A	DTA114EKA × 2	10	10	-50	-50	30~	-5	-5
			UMA10N	FMA10A	DTA113ZKA × 2	1.0	10	-50	-100	33~	-5	-5
			UMA11N	FMA11A	DTA143ZKA × 2	4.7	47	-50	-100	80~	-5	-10
			UMG1N	FMG1A	DTC124EKA × 2	22	22	50	30	56~	5	5
			UMG2N	FMG2A	DTC144EKA × 2	47	47	50	30	68~	5	5
			UMG3N	FMG3A	DTC114YKA × 2	10	47	50	70	68~	5	5
UMG6N	FMG6A	DTC143ZKA × 2	4.7	47	50	100	80~	5	10			
UMG9N	FMG9A	DTC114EKA × 2	10	10	50	50	30~	5	5			
UMG10N	-	DTC113ZKA × 2	1	10	50	100	33~	5	5			
UMG11N	FMG11A	DTC123JKA × 2	2.2	47	50	100	80~	5	10			
		Power Management	-	FMJ1A	DTA144EKA	47	47	-50	-30	68~	-5	-5
			DA119		Diode characteristics		V _R = 80V, I _o = 100mA		C _T = 3.5pF, t _{rr} = 4.0ns			
		Switching Circuit	UMC2N	FMC2A	DTA124EKA DTC124EKA	22	22	-50	-30	56~	-5	-5
			UMC3N	FMC3A	DTA114EKA DTC114EKA	10	10	-50	-50	30~	-5	-5
			UMC4N	FMC4A	DTA114YKA DTC144EKA	10	47	-50	-70	68~	-5	-5
			UMC5N	FMC5A	DTA143XKA DTC144EKA	4.7	10	-50	-100	30~	-5	-5
			-	FMC6A	DTA115EKA DTC115EKA	100	100	-50	-20	82~	-5	-5
			-	FMC6A	DTA115EKA DTC115EKA	100	100	50	20	82~	5	5

● Built-in 1 resistor

Equivalent circuit		Application	Package		Equivalent product	Resistance value	V _{CE0} (V)	I _c (mA)	h _{FE}	I _c (mA)	
TOP VIEW			UM5	FMT						R ₁ (kΩ)	V _{CE} (V)
UM5	FMT		Part No.								
		Inverter Driver	UMA3N	FMA3A	DTA143TKA × 2	4.7	-50	-100	100~600	-5	-1
			UMA4N	FMA4A	DTA114TKA × 2	10	-50	-100	100~600	-5	-1
			UMA6N	FMA6A	DTA144TKA × 2	47	-50	-100	100~600	-5	-1
			UMG3N	FMG3A	DTC143TKA × 2	4.7	50	100	100~600	5	1
			UMG4N	FMG4A	DTC114TKA × 2	10	50	100	100~600	5	1
			UMG6N	FMG6A	DTC144TKA × 2	47	50	100	100~600	5	1
		Power Management	UMC1N	FMC1A	DTA143TKA	4.7	-50	-100	100~600	-5	-1
			UMC1N	FMC1A	DTC143TKA	4.7	50	100	100~600	5	1

●Product Designation

- When ordering, specify the type.
- Check each code against the tables shown below.
- Fill a space with the next character.



Special code
 • Omit for standard product.
 • Factory assigned for custom product.

Packaging

Package	Code	Packaging type	Packaging style	Direction	Quantity /Package (pcs)
UM5	TL	Taping	Embossed reel tape	2 Pins side on sprocket hole side	3,000
	TR			3 Pins side on sprocket hole side	
FMT	T148	Taping	Embossed reel tape	3 Pins side on sprocket hole side	3,000
	T149			2 Pins side on sprocket hole side	

(Unit : mm)

Package	UM5 (Suffix N)	FMT (SOT-25)
Dimensions	<p>Each lead has same dimensions</p>	<p>Each lead has same dimensions</p>
	Actual size	Enlarged (×3.0)
	Actual size	Enlarged (×3.0)

●Packaging Specifications

(Unit : mm)

UM5 (Suffix N) FMT

Reel

Tape

Package	Code	Package	Code	Size		
				A	B	C
UM5	TL	UM5	TR	2.2±0.1	2.4±0.1	1.15±0.1
FMT	T149	FMT	T148	3.1±0.1	3.2±0.1	1.35±0.1

Digital Transistors

Land pattern

Page 101

The Class and Lead numbers listed in Standard and Special Standard Transistors Lists

Page 102

Part Marking

Page 106