

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

UM5 • FMT [5 pin type including 2 circuits]

●Built-in 2 resistors

Equivalent circuit		Application	Package		Equivalent product	Resistance value		Vcc (V)	Io (mA)	Gi		
TOP VIEW			UM5	FMT		R1 (kΩ)	R2 (kΩ)				Vo (V)	Io (mA)
UM5	FMT		Part No.									
		Inverter Driver	UMA1	FMA1A	DTA124EK × 2	22	22	-50	-30	56~	-5	-5
			UMA2	FMA2A	DTA144EK × 2	47	47	-50	-30	68~	-5	-5
			UMA5	FMA5A	DTA123JK × 2	2.2	47	-50	-100	80~	-5	-10
			UMA7	FMA7A	DTA143XK × 2	4.7	10	-50	-100	30~	-5	-10
			UMA8	FMA8A	DTA114YK × 2	10	47	-50	-100	68~	-5	-5
			UMA9	FMA9A	DTA114EK × 2	10	10	-50	-50	30~	-5	-5
			UMA10	FMA10A	DTA113ZK × 2	1.0	10	-50	-100	33~	-5	-5
			UMA11	FMA11A	DTA143ZK × 2	4.7	47	-50	-100	80~	-5	-10
			UMG1	FMG1A	DTC124EK × 2	22	22	50	30	56~	5	5
			UMG2	FMG2A	DTC144EK × 2	47	47	50	30	68~	5	5
			UMG5	FMG5A	DTC114YK × 2	10	47	50	70	68~	5	5
		UMG8	FMG8A	DTC143ZK × 2	4.7	47	50	100	80~	5	10	
		UMG9	FMG9A	DTC114EK × 2	10	10	50	50	30~	5	5	
		UMG10	—	DTC113ZK × 2	1	10	50	100	33~	5	5	
		UMG11	FMG11A	DTC123JK × 2	2.2	47	50	100	80~	5	10	
		Switching Circuit	—	FMJ1A	DTA144EK	47	47	-50	-30	68~	-5	-5
			—	FMJ1A	DA119	Diode characteristics VR=80V, Io=100mA CT=3.5pF, trr=4.0ns						
			UMC2	FMC2A	DTA124EK DTC124EK	22 22	22 22	-50 50	-30 30	56~ 56~	-5 5	-5 5
			UMC3	FMC3A	DTA114EK DTC114EK	10 10	10 10	-50 50	-50 50	30~ 30~	-5 5	-5 5
			UMC4	FMC4A	DTA114YK DTC144EK	10 47	47 47	-50 50	-70 30	68~ 68~	-5 5	-5 5
			UMC5	FMC5A	DTA143XK DTC144EK	4.7 47	10 47	-50 50	-100 30	30~ 68~	-5 5	-5 5
		—	FMC6A	DTA115EK DTC115EK	100 100	100 100	-50 50	-20 20	82~ 82~	-5 5	-5 5	

●Built-in 1 resistor

Equivalent circuit		Application	Package		Equivalent product	Resistance value		V _{CEO} (V)	I _c (mA)	h _{FE}		
TOP VIEW			UM5	FMT		R ₁ (kΩ)	V _{CE} (V)				I _c (mA)	
UM5	FMT		Part No.									
		Inverter Driver	UMA3	FMA3A	DTA143TK × 2	4.7	−50	−100	100~600	−5	−1	
			UMA4	FMA4A	DTA114TK × 2	10	−50	−100	100~600	−5	−1	
			UMA6	FMA6A	DTA144TK × 2	47	−50	−100	100~600	−5	−1	
			UMG3	FMG3A	DTC143TK × 2	4.7	50	100	100~600	5	1	
			UMG4	FMG4A	DTC114TK × 2	10	50	100	100~600	5	1	
			UMG6	FMG6A	DTC144TK × 2	47	50	100	100~600	5	1	
			UMG7	FMG7A	DTC114TK × 2	10	50	100	100~600	5	1	
		Switching Circuit	UMC1	FMC1A	DTA143TK	4.7	−50	−100	100~600	−5	−1	
					DTC143TK	4.7	50	100	100~600	5	1	
		Pre Amp (6dB Amp)	—	FMQ1A	2SA1037AK	R ₁ (Ω)	R ₂ (Ω)	−20	−50	120~560	−6	−1
					2SC2412K	470	470	20	30	120~560	6	1

●Product Designation

Specify part No., packaging specification code and h_{FE} ranking code.

F M G 2 A **T 1 4 9**

Part No.

Blank unless otherwise required

Packaging specification code

Package	UM5	FMT
Code	TL	T149
	TR	T148

(Unit : mm)

Package	UM5	FMT (SOT-25)
Dimensions	Each lead has same dimensions	Each lead has same dimensions
	Actual size	Enlarged (×3.0)
	Actual size	Enlarged (×3.0)

●Packaging

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

●Packaging Specifications

(Unit : mm)

UM5 FMT

Reel

Diagram of a reel showing dimensions: 2.0, 10.0±1.5, 13.5±0.5, 178.0±2.0, 459.0 Min.

Tape

Diagram of a tape showing dimensions: 4.0±0.1, 2.0±0.05, 4.0±0.1, 1.5±0.1, 1.75±0.1, 3.5±0.05, 8.0±0.2, 5.5±0.2, 0~0.5, 0.3±0.1.

Package	Code
UM5	TL
FMT	T149

Package	Code
UM5	TR
FMT	T148

Package	Size		
	A	B	C
UM5	2.2±0.1	2.4±0.1	1.15±0.1
FMT	3.1±0.1	3.2±0.1	1.35±0.1