

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 • FMT (5 pin type including 2 circuits)

● Built-in 2 resistors

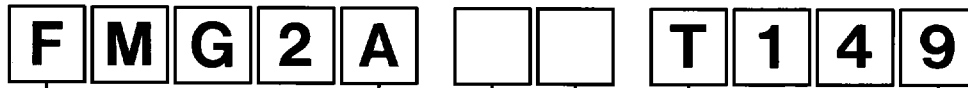
Equivalent circuit		Application	Package		Equivalent product	Resistance value		V _{CC} (V)	I _o (mA)	G _I	V _o (V)	I _o (mA)
TOP VIEW			UM5	FMT		R ₁ (kΩ)	R ₂ (kΩ)					
UM5	FMT		Part No.									
		Inverter Driver	UMA1	FMA1A	DTA124EK × 2	22	22	-50	-30	56~	-5	-5
			UMA2	FMA2A	DTA144EK × 2	47	47	-50	-30	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
					Switching Circuit	UMG5	FMG5A	DTC114YK × 2	10	47	50	70
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
		Pre Amp (6dB Amp)	-	FMJ1A	DTA144EK	47	47	-50	-30	68~	-5	-5
					DA119	Diode characteristics		V _R =80V, I _o =100mA		C _T =3.5pF, t _{rr} =4.0ns		
			UMC2	FMC2A	DTA124EK DTC124EK	22	22	-50 50	-30 30	56~ 56~	-5 5	-5 5
			UMC3	FMC3A	DTA114EK DTC114EK	10	10	-50 50	-50 50	30~ 30~	-5 5	-5 5
			UMC4	FMC4A	DTA114YK DTC144EK	10	47	-50 50	-70 30	68~ 68~	-5 5	-5 5
			UMC5	FMC5A	DTA143XK DTC144EK	4.7	10	-50 50	-100 30	30~ 68~	-5 5	-5 5
-	FMC6A	DTA115EK DTC115EK	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 _{CE0} (V)	I _c (mA)	h _{FE}	V _{CE} (V)	I _c (mA)
TOP VIEW			UM5	FMT		R ₁ (kΩ)						
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	
		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.



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			
	Actual size	Enlarged (×3.0)	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	Tape																												
	<table border="1"> <tr> <th>Package</th> <th>Code</th> <th>Package</th> <th>Code</th> <th colspan="3">Size</th> </tr> <tr> <td>UM5</td> <td>TL</td> <td>UM5</td> <td>TR</td> <td>A</td> <td>B</td> <td>C</td> </tr> <tr> <td>FMT</td> <td>T149</td> <td>FMT</td> <td>T148</td> <td>2.2±0.1</td> <td>2.4±0.1</td> <td>1.15±0.1</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>3.1±0.1</td> <td>3.2±0.1</td> <td>1.35±0.1</td> </tr> </table>	Package	Code	Package	Code	Size			UM5	TL	UM5	TR	A	B	C	FMT	T149	FMT	T148	2.2±0.1	2.4±0.1	1.15±0.1					3.1±0.1	3.2±0.1	1.35±0.1
Package	Code	Package	Code	Size																									
UM5	TL	UM5	TR	A	B	C																							
FMT	T149	FMT	T148	2.2±0.1	2.4±0.1	1.15±0.1																							
				3.1±0.1	3.2±0.1	1.35±0.1																							