

Transistors

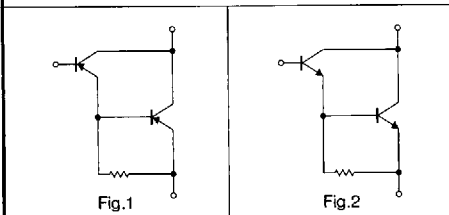
From very small EM3 type package to high power PSD package (the power dissipation is equivalent to TO-220, $P_c=35W$) transistors.

EM3 • UMT • SMT

Three types are available to allow the most suitable package depending on size specifications.

Application	Package			V_{CE0} (V) * V_{CES}	I_c (mA)	P_c (mW) ($T_a=25^\circ C$)		h_{FE}	Available h_{FE} Ranking code	V_{CE} (V)	I_c (mA)	Circuit
	EM3 (1608)	UMT (2125)	SMT (2916)			EM3	UMT, SMT					
	Part No.											
Low Noise	-	-	2SA1037AKLN	-40	-150	-	200	390~820	E	-6	-1	-
	-	-	2SA1455K	-50	-150	-	200	180~560	R S	-6	-1	-
	-	-	2SC2412KLN	-120	-50	-	200	180~820	R S E	-6	-2	-
	-	-	2SC3722K	40	150	-	200	390~820	E	6	1	-
	-	-	2SC3722K	50	150	-	200	180~560	R S	6	1	-
	-	2SC4081LN	-	40	100	-	200	180~820	R S E	6	1	-
Pre Amp	2SA1774	2SA1576A	2SA1037AK	-50	-150	150	200	120~560	Q R S	-6	-1	-
	-	2SA1579	2SA1514K	-120	-50	-	200	180~820	R S E	-6	-2	-
	2SC4617	2SC4081	2SC2412K	50	150	150	200	120~560	Q R S	6	1	-
	-	2SC4102	2SC3906K	120	50	-	200	180~820	R S E	6	2	-
	-	2SC4723	2SC4642K	25	100	-	200	180~560	R S	6	1	-
	-	2SA1577	2SA1036K	-32	-500	-	200	82~390	P Q R	-3	-10	-
Driver	-	-	2SB1051K	-32	-1000	-	200	82~390	P Q R	-3	-100	-
	-	-	2SB1197K	-32	-800	-	200	82~390	P Q R	-3	-100	-
	-	-	2SB1198K	-80	-500	-	200	82~390	P Q R	-3	-100	-
	-	2SC4097	2SC2411K	32	500	-	200	82~390	P Q R	3	10	-
	-	2SD1949	2SD1484K	50	500	-	200	82~390	P Q R	3	100	-
	-	-	2SD1781K	32	800	-	200	82~390	P Q R	3	100	-
	-	-	2SD1782K	80	500	-	200	82~390	P Q R	3	100	-
	-	-	2SD1757K	15	500	-	200	120~560	Q R S	3	100	-
	-	-	2SB852K	-32*	-300	-	200	5k~	None	-5	-100	Fig.1
Darlington	-	-	2SD1383K	32*	300	-	200	5k~	None	5	100	Fig.2
Chroma	-	-	2SC4061K	300	100	-	200	39~180	M N P	10	10	-
High h_{FE}	-	-	2SD2114K	20	500	-	200	560~2700	U V W	3	10	-
High V_{EBO}	-	2SD2351	2SD2226K	50	150	-	200	560~2700	U V W	5	1	-

Darlington transistor internal circuit



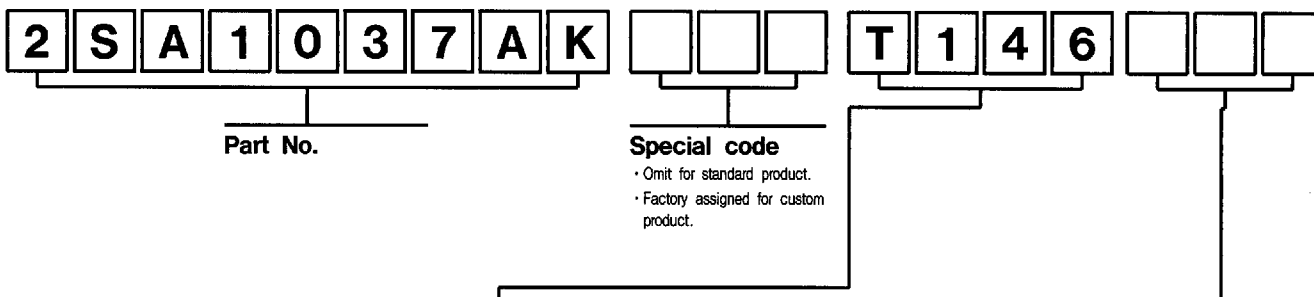
EM3 • UMT • SMT High frequency type

Application	Package			V_{CE0} (V)	I_c (mA)	f_T (MHz)	C_{ob} (pF)	h_{FE}	Available h_{FE} Ranking code	V_{CE} (V)	I_c (mA)	
	EM3 (1608)	UMT (2125)	SMT (2916)									
	Part No.											
AM	FM IF AM RF	2SA1821	2SA1808	2SA1733K	-20	-30	400	0.85	39~180	M N P	-10	-1
		-	2SC4128	2SC4018K	32	100	230	1.8	56~180	N P	6	2
		2SC4618	2SC4098	2SC2413K	25	50	300	1.3	56~270	N P Q	6	1
FM	SW	2SC5073	2SC4700	2SC4699K	20*	200	250	2.0	39~180	M N P	5	5
		2SC5072	2SC4912	2SC4911K	20*	200	450	2.5	56~180	N P	5	5
VHF	FM RF Mix. Osc.	2SC4649	2SC4099	2SC2059K	20	20	500	1.4	39~180	M N P	6	1
		-	2SC4772	2SC4771K	25	50	600	0.95	27~180	L M N P	10	10
		2SA1885	2SA1886	-	-10	-100	650	1.2	180~560	R S	-5	-10
UHF	RF SW	2SC4997	2SC4998	-	10	100	240	1.4	560~2700	U V W	5	10
		-	2SC4773	2SC4326LK	6	50	800	1.1	120~560	Q R S	5	5
		-	2SC4774	2SC4713K	6	50	800	1.0	120~560	Q R S	5	5
TV Tuner Mix. Osc.		-	2SC4103	2SC3802K	25	30	1100	0.8	39~270	M N P Q	10	4
		2SC4619	2SC4100	2SC3082K	19	50	1100	1.0	39~270	M N P Q	10	5
		2SC4725	2SC4082	2SC3837K	18	50	1500	0.9	27~270	L M N P Q	10	10
		-	2SC4084	2SC3839K	20	50	2000	0.8	27~270	L M N P Q	10	5
		2SC4726	2SC4083	2SC3838K	11	50	3200	0.8	27~270	L M N P Q	10	5

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●Product Designation

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



Part No.

Special code

- Omit for standard product.
- Factory assigned for custom product.

Packaging

Package	Code	Packaging style	Packaging style	Direction	Quantity/package (pcs)
EM3	TL	Taping	Embossed reel tape	1 Pin side on sprocket hole side	3,000
	TR			2 Pins side on sprocket hole side	
UMT	T106	Taping	Embossed reel tape	1 Pin side on sprocket hole side	3,000
	T107			2 Pins side on sprocket hole side	
SMT	T146	Taping	Embossed reel tape	1 Pin side on sprocket hole side	3,000
	T147			2 Pins side on sprocket hole side	

hFE Ranking code

Input hFE rank signal display

One rank preferred Q

Multiple rank preferred Q S

(Min., Max. is displayed)

Code	hFE Range
L	27~56
M	39~82
N	56~120
P	82~180
Q	120~270
R	180~390
S	270~560
E	390~820
U	560~1200
V	820~1800
W	1200~2700
A	1k~
B	5k~
C	10k~

Package	EM3	UMT	SMT (SC-59/Japanese SOT-23)
Dimensions	<p>(1) Emitter (2) Base (3) Collector</p>	<p>Each lead has same dimensions</p> <p>(1) Emitter (2) Base (3) Collector</p>	<p>All pins : same size</p> <p>(1) Emitter (2) Base (3) Collector</p>
Actual size	-	-	-
Enlarged (×3.0)			

Transistors

EM3 · UMT · SMT

● Packaging Specifications

(Unit : mm)

