MPT • CPT F5 • PSD

Application	Package MPT	Package CPT F5	Package PSD	V_{CEO} (V) *V_{CES} **V_{CER}	Ic (A)	Ic Max. (A)	Pc (W) MPT (Ta=25°C)	Pc (W) CPT PSD (Tc=25°C)	h_{FE}	V_{CE} (V)	Ic (mA)	Circuit
	Part No.											
Driver	2SB1132	–	–	−32	−1	–	2★	–	82~390	−3	−100	–
	New 2SA1900	–	–	−50	−1	−2	2★	–	82~390	−3	−500	–
	–	2SB1184	–	−50	−3	–	–	15	82~390	−3	−500	–
	2SB1188	2SB1182	–	−32	−2	–	2★	10	82~390	−3	−500	–
	2SB1189	–	–	−80	−0.7	–	2★	–	82~390	−3	−100	–
	2SB1260	2SB1181	–	−80	−1	–	2★	10	82~390	−3	−100	–
	–	2SB1275	–	−160	−1.5	–	–	10	56~270	−5	−100	–
	–	2SB1516	–	−80	−3	–	–	10	56~270	−2	−400	–
	–	2SB1535	–	−100	−6	–	–	10	56~270	−1	−550	–
	2SC4132	–	–	120	2	–	2★	–	56~390	5	100	–
	2SD1664	–	–	32	1	–	2★	–	82~390	3	100	–
	New 2SC5053	–	–	50	1	2	2★	–	82~390	3	500	–
	–	2SD1760	–	50	3	–	–	15	82~390	3	500	–
	2SD1766	2SD1758	–	32	2	–	2★	10	82~390	3	500	–
	2SD1767	–	–	80	0.7	–	2★	–	82~390	3	100	–
	2SD1898	2SD1733	–	80	1	–	2★	10	82~390	3	500	–
	2SD2211	2SD1918	–	160	1.5	–	2★	10	56~270	5	100	–
	2SD2167	–	–	31±4	2	3	2★	–	56~270	3	500	–
Low V_{CE}(sat)	2SA1797	–	–	−50	−2	−5	2★	–	82~270	−2	−500	–
	–	–	☆2SA1870	−60	−12	–	–	35	60~320	−2	−2000	–
	2SB1424	–	–	−20	−3	−5	2★	–	82~390	−2	−100	–
	New 2SB1561	–	–	−60	−2	−5	2★	–	82~270	−2	−500	–
	2SC4672	–	–	50	2	5	2★	–	82~270	2	500	–
	–	–	☆2SC4939	60	12	–	–	35	60~320	2	2000	–
	–	2SC5103	–	60	5	10	–	10	82~270	2	1000	–
	2SD2150	–	–	20	3	5	2★	–	120~560	2	100	–
	New 2SD2391	–	–	60	2	5	2★	–	82~270	2	500	–
Strobo Flash Low V_{CE}(sat)	–	New 2SA1834	–	−20	−10	−15	–	10	120~560	−2	−500	–
	2SB1308	–	–	−20	−3	−5	2★	–	82~390	−2	−500	–
	2SB1386	2SB1412	–	−20	−5	−10	2★	10	82~390	−2	−500	–
	–	2SC5001	–	20	10	15	–	10	120~560	2	500	–
	2SD1963	–	–	20	3	5	2★	–	120~560	2	500	–
	2SD2098	2SD2118	–	20	5	10	2★	10	120~560	2	500	–
High h_{FE}	2SB1427	–	–	−20	−2	−3	2★	–	270~1200	−6	−500	–
	2SD2153	–	–	25	2	3	2★	–	390~2700	6	500	–
	–	2SD2318	–	60	3	4.5	–	15	390~1800	4	500	–
Darlington	–	2SB1183	–	−40**	−2	–	–	10	1k~200k	−3	−500	Fig.1
	–	2SB1316	–	−100	−2	–	–	10	1k~10k	−2	−1000	Fig.3
	–	2SB1474	–	−80	−4	–	–	10	1k~10k	−3	−2000	Fig.2
	–	2SD1759	–	40**	2	–	–	10	1k~200k	3	500	Fig.5
	2SD1834	–	–	60*	1	–	2★	–	2k~	3	500	Fig.4
	2SD2195	2SD1980	–	100	2	–	2★	10	1k~10k	2	1000	Fig.6
	2SD2170	–	–	90^{+20}_{-10}	2	3	2★	–	1k~10k	2	1000	Fig.7
	2SD2212	2SD2143	–	60±10	2	–	2★	10	1k~10k	2	1000	Fig.7
High Voltage SW	2SA1759	–	–	−400	−0.1	−0.2	2★	–	56~270	−10	−10	–
	2SA1812	2SA1727	–	−400	−0.5	−1	2★	10	56~270	−5	−50	–
	–	2SA1862	–	−400	−2	−4	–	10	56~180	−5	−100	–
	–	2SA1807	–	−600	−1	−2	–	10	56~180	−5	−100	–
	2SC4505	–	–	400	0.1	–	2★	–	56~270	10	10	–
	–	–	☆2SC4937	400	2	–	–	35	16~50	5	0.1	–
	–	–	☆2SC4938	400	5	–	–	35	16~50	5	3	–

Notes : 1. ☆Under development 2. * F5 denotes surface mount version of CPT (SC-64) 3. ★Package mounted on ceramic 40×40×0.7mm

Darlington transistor internal circuit

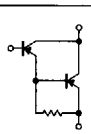


Fig.1

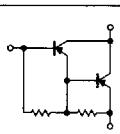


Fig.2

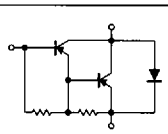


Fig.3

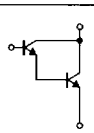


Fig.4

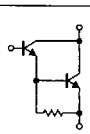


Fig.5

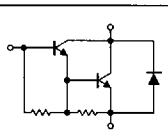


Fig.6

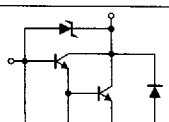


Fig.7

MPT • CPT F5 • PSD

●Product Designation

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

Package	MPT	CPT F5	PSD
Code	T101	TL	TL
	T100	TR	TR

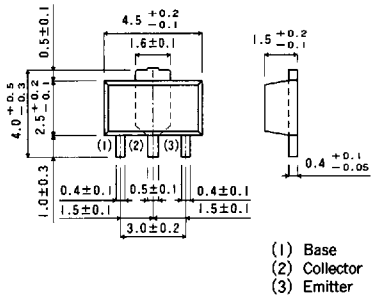
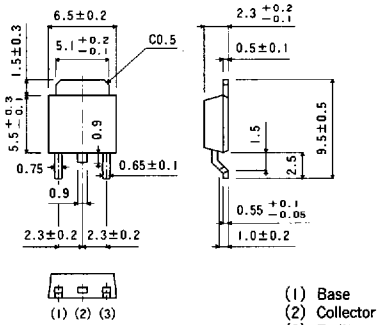
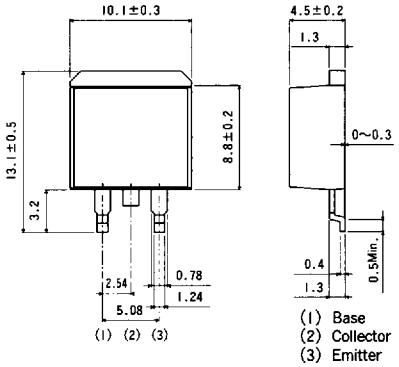
Packaging specification code

2	S	B	1	1	8	8			T	1	0	0	Q

Part No. — **Blank unless otherwise required** — **h_{FE} Ranking code**

Code	h_{FE} 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~

(Unit : mm)

Package	MPT (SOT-89)	CPT F5 (D PAK)	PSD (D^2 PAK)
Dimensions	 (1) Base (2) Collector (3) Emitter	 (1) Base (2) Collector (3) Emitter	 (1) Base (2) Collector (3) Emitter
Actual size			
External dimensions (×1.0)			

●Packaging

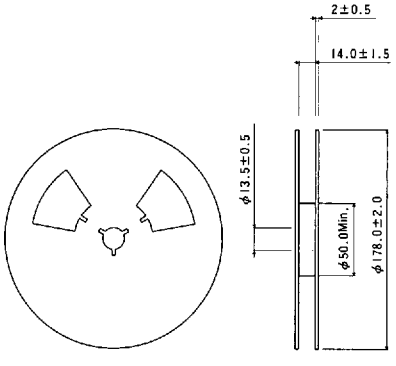
Package	Packaging type	Packaging style	Direction	Code	Quantity / Package (pcs)	Quantity / Unit (pcs)
MPT	Taping	Embossed reel tape	Pin 3 side on sprocket hole side	T100	1,000	–
			Fin on sprocket hole side	T101		
CPT F5	Taping	Embossed reel tape	Fin on sprocket hole side	TL	2,500	–
			Pin 3 side on sprocket hole side	TR		
	Bulk	Polyethylene bag	–	–	2,000	200
PSD	Taping	Embossed reel tape	Fin on sprocket hole side	TL	1,000	–
			Pin 3 side on sprocket hole side	TR		
	Bulk	Polyethylene bag	–	–	500	100

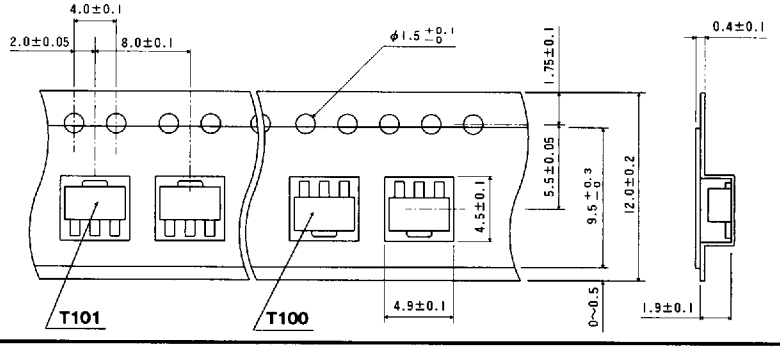
●Packaging Specifications

(Unit : mm)

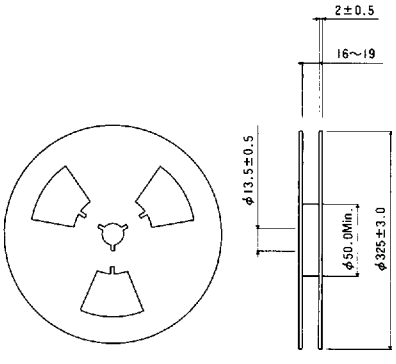
Reel	Tape

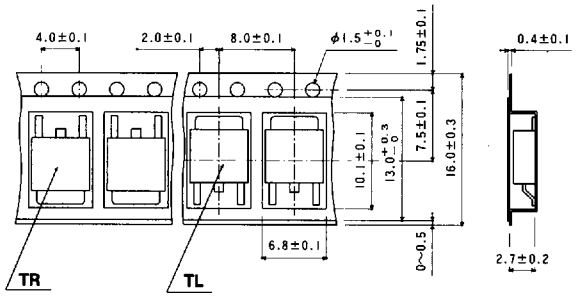
MPT (SOT-89)



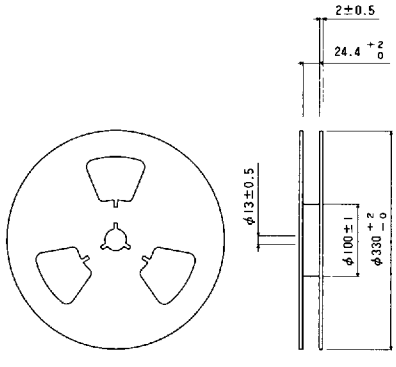


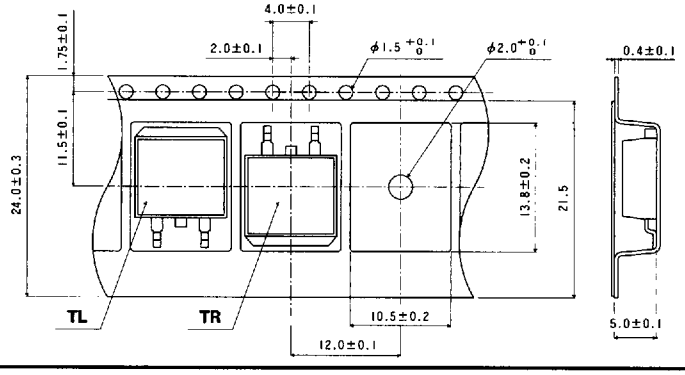
CPT F5 (D PAK)





PSD (D² PAK)





Transistors
Land pattern
Page 103
The Class and Basic ordering Units for Standard and Semi-standard Products Units
Page 107
Part Marking
Page 111