

Transistors (Selection Guide by Applications and Functions)

Power Transistor Arrays

Equivalent Circuit	Series Name	PU3000 Series	PUA3000 Series	PU4000 Series						
	Package (No.)	8-Pin · SIL Package (D68)(D69)		10-Pin · SIL Package (D70)						
Equivalent Circuit	Structure	I		II	III		V			
		NPN	PNP	PNP	NPN	PNP	NPN-NPN	PNP-PNP	NPN-PNP	
<p>Example (NPN)</p>	General	PU3110 PU3111	PU3210 PU3211		PU4110 PU4111	PU4210 PU4211	PU4410 PU4411	PU4510 PU4511	PU4310 PU4311	
	Low $V_{CE(sat)}$	PU3112 PU3113 PU3114	PU3212 PU3213 PU3214		PU4112 PU4113 PU4114	PU4212 PU4213 PU4214	PU4412 PU4413 PU4414	PU4512 PU4513 PU4514	PU4312 PU4313 PU4314	
<p>Example (PNP)</p>	General	PU3116	PU3216 PU3226		PU4116	PU4216	PU4416	PU4516	PU4316	
	High h_{FE}	PU3117 PU3118		PUA3228	PU4117 PU4118		PU4417 PU4418			
<p>Example (NPN)</p>	Darlington	PU3119	PU3219		PU4119	PU4219	PU4419	PU4519	PU4319	
		PU3120	PU3220		PU4120	PU4220	PU4420	PU4520	PU4320	
		△ PU3151			△ PU4151		△ PU4451			
		△ PU3152			△ PU4152		△ PU4452			
		△ PU3153			△ PU4153		△ PU4453			
		△ PU3154			△ PU4154		△ PU4454			
		△ PU3161			△ PU4161		△ PU4461			
		△ PU3162			△ PU4162		△ PU4462			
		△ PU3163			△ PU4163		△ PU4463			
		△ PU3164			△ PU4164		△ PU4464			
		PU3171			PU4171		PU4471			
		PU3173	PU3273		PU4173	PU4273	PU4473	PU4573		
		<p>D1 ~ D4 : Fly back voltage absorption diode D5 ~ D8 : Fly wheel diode</p>	Darlington with built-in zener	PU3121			PU4121			PU4421
PU3122					PU4122			PU4422		
PU3123					PU4123			PU4423		
PU3124					PU4124			PU4424	PU4325	
							PU4126			
							PU4128			
△ PU3131					△ PU4131		△ PU4431			
△ PU3132					△ PU4132		△ PU4432			
△ PU3133					△ PU4133		△ PU4433			
△ PU3134					△ PU4134		△ PU4434			
△ PU3135							PU4435			
PU3136					PU4136		PU4436			
PU3137					PU4137		PU4437			
△ PU3138					△ PU4138		△ PU4438			
PU3141					PU4141		PU4441			
△ PU3142			△ PU4142		△ PU4442					
△ PU3143			△ PU4143		△ PU4443					
△ PU3144			△ PU4144		△ PU4444					
PU3145					PU4445					
PU3146					PU4446					
△ PU3147			△ PU4147		△ PU4447					
△ PU3148			△ PU4148		△ PU4448					
High- h_{FE} with built-in zener	PU3127			PU4127						
FET with built-in zener	N-Channel PU61C56									
FET										

△ Tentative

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PU7000 PU8000 Series	PU1000 Series	PUC4700 Series	Main Characteristics (T _a = 25 °C)													Remarks						
			10-Pin SIL(D70)		12-Pin SIL(D71)																Basic Type	
			VI	VII	VIII/IX						hFE		V _{CE(sat)}			NPN	PNP					
N Channel	NPN-NPN	NPN-PNP	N Channel	I _c * I _D (A)	V _{CE0} * V _{DSS} (V)	V _{CE0} * V _{DSS} (V)	V _{EB0} (V)	min	max	V _{CE} (V)	I _c (A)	max (V)	I _c (A)	I _B (A)								
					3/-3	60/-60	60/-60	6/-6	70	250	4/-4	1/-1	±1.2	3/-3	0.375/-0.375	2SD1266	2SB941					
					4/-4	60/-60	60/-60	5/-5	70	250	4/-4	1/-1	±1.5	4/-4	0.4/-0.4	2SD1267	2SB942					
					3/-3	130/-130	80/-80	7/-7	60	260	2/-2	0.1/-0.1	±0.5	2/-2	0.1/-0.1	2SD1268	2SB943					
					4/-3	130/-130	80/-80	7/-7	60	260	2/-2	0.1/-0.1	±0.5	3/-3	0.15/-0.15	2SD1269	2SB944					
					7/-7	40/-40	20/-20	5/-5	60	260	2/-2	2/-2	±0.6	5/-5	0.16/-0.16	2SD1444	2SB953					
					-10	-40	-20	5	60	260	-2	-2	-0.6	-7	-0.23		2SB947					
					2/-2	200/-200	150/-150	6/-6	60	240	10/-10	0.15/-0.15	±1	0.5/-0.5	0.05/-0.05	2SD1264	2SB940					
					-2	-60	-60	-6	100	280	-4	-1	±2	-2	-0.2		2SB1052					
					-2	-30	-30	-6	80	280	-4	-1	0.8	-1	-0.1							
					3	80	80	6	500	2300	4	0.5	1	2	0.05	2SD1273						
					1	200	150	6	500	2000	4	0.2	1	0.5	0.02	2SD1272						
					2/-2	60/-60	60/-60	5/-5	1000	10000	4/-4	2/-2	±2.5	2/-2	8mA/-8mA	2SD1275	2SB949					
			PU1619		2.5/-2.5	60/-60	60/-60	5/-5	1000	10000	4/-4	2/-2	±2.8	2/-2	8mA/-8mA	2SD1275	2SB949					
			PU1620		4/-2	60/-60	60/-60	5/-5	1000	10000	3/-3	3/-3	±2	2/-3	12mA/-12mA	2SD1276	2SB950					
					2	60	60	5	1000	10000	4	1	2.5	2	8mA							
					3	60	60	5	1000	10000	4	1.5	2.5	3	12mA							
					4	60	60	5	1000	10000	4	2	2.5	4	16mA							
					8	60	60	5	1000	10000	4	4	2.5	8	32mA							
					2	200	200	5	1000	10000	4	0.7	2.5	1.5	6mA							
					3	200	200	5	1000	10000	4	1	2.5	2	8mA							
					4	200	200	5	1000	10000	4	1.5	2.5	3	12mA							
					8	200	200	5	1000	10000	4	3	2.5	6	24mA							
					3	150	100	8	2000	20000	2	1.5	1.5	1.5	1.5mA							
					4/-4	150/-150	100/-100	5/-5	1000	10000	4/-4	2/-2	2.5	4/-4	16mA/-16mA							
			PU1101		1.5	150	100	5	2000	15000	5	0.75	1.5	0.75	1.5mA							
				PU1501	2/-4	100 ±15/-80	100 ±15/-80	5/-5	1000	10000	4/-3	2/-3	±2.5	2/-3	8mA/-12mA							
				PU1601	4/-4	100/-100	100/-100	5/-5	1000	10000	4/-4	2/-2	±2.5	4/-4	±16mA							
					2	30 ±5	30 ±5	5	1000	10000	4	2	2.5	2	8mA	2SD1322						
					4	30 ±5	30 ±5	5	1000	10000	3	3	2	3	12mA	2SD1323						
					2	60 ±10	50 ±10	5	1000	10000	4	2	2.5	2	8mA	2SD1325						
					4	60 ±10	60 ±10	5	1000	10000	3	3	-1.2	3	12mA	2SD1326						
				(NPN) 2	60 ±10	60 ±10	5	1000	10000	4	2	2.5	2	8mA	2SD1325	2SB941						
				(PNP) 3	-60	-60	5	70	250	-4	-1	-1.2	-3	-0.375								
					2	100 ±15	100 ±15	5	1000	10000	4	2	2.5	2	8mA							
					4	100 ±15	100 ±15	5	1000	10000	3	3	2	3	12mA							
					2	60 ±10	60 ±10	5	1000	10000	4	1	2.5	2	8mA							
					3	60 ±10	60 ±10	5	1000	10000	4	1.5	2.5	3	12mA							
					4	60 ±10	60 ±10	5	1000	10000	4	2	2.5	4	16mA							
					5	60 ±10	60 ±10	5	1000	10000	4	4	2.5	8	32mA							
					2	60 ±10	60 ±10	5	1000	10000	4	1	2.5	2	8mA							
					3	60 ±10	60 ±10	5	1000	10000	4	1.5	2.5	3	12mA							
					4	60 ±10	60 ±10	5	1000	10000	4	2	2.5	4	16mA							
					8	60 ±10	60 ±10	5	1000	10000	4	4	2.5	8	32mA							
					2	100 ±15	100 ±15	5	1000	10000	4	1	2.5	2	8mA							
					3	100 ±15	100 ±15	5	1000	10000	4	1.5	2.5	3	12mA							
					4	100 ±15	100 ±15	5	1000	10000	4	2	2.5	4	16mA							
					8	100 ±15	100 ±15	5	1000	10000	4	4	2.5	8	32mA							
					2	100 ±15	100 ±15	5	1000	10000	4	1	2.5	2	8mA							
					3	100 ±15	100 ±15	5	1000	10000	4	1.5	2.5	3	12mA							
					4	100 ±15	100 ±15	5	1000	10000	4	2	2.5	4	16mA							
					8	100 ±15	100 ±15	5	1000	10000	4	4	2.5	8	32mA							
					3	35 ±5	35 ±5	6	500	2500	4	0.5	1.0	2	0.05							
PU7456					* 6	* 35 ±10	* ±20		I _{DSS} > 10μA (V _{DS} = 20V, V _{GS} = 0)			V _{th} = 2.5V (V _{DS} = 25V, I _D = 1mA)										
PUB4702					* ±1	* 35 ±10	* ±15		I _{DSS} > 10μA (V _{DS} = 25V, V _{GS} = 0)			t _{on} = 120ns, t _r = 390ns, t _d (off) = 800ns										
PUB4701					* 3	150 *	* ±20		I _{DSS} > 10μA (V _{DS} = 120V, V _{GS} = 0)			t _{on} = 10ns, t _r = 30ns, t _d (off) = 290ns										
			PUC4701		* 2	80 *	* ±15		I _{DSS} > 10μA (V _{DS} = 64V, V _{GS} = 0)			R _{on} < 0.9 with flyback Diode										