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# FOR USE BY ELECTRICIANS OVERSEAS :

**最新トランジスタ規格表** (New Transistor Manual) lists all the transistors registered with the Electronic Industries Association of Japan (EIAJ), arranged in a manner easy to look up. We hope that you will make full use of the data provided in this manual by referring to the Japanese-English translation key given below.

型名	社名	用途	構造	最大定格 (T <sub>b</sub> =25°C)					電気的特性 (T <sub>b</sub> =25°C)										外形	備考
				V <sub>ceo</sub> (V)	V <sub>ceo</sub> (V)	I <sub>c</sub> (mA)	P <sub>c</sub> (mW)	T <sub>j</sub> (°C)	I <sub>ceo</sub> 最大値 (μA)	直流又はパルスI <sub>BE</sub>		バイアス		h <sub>FE</sub>	h <sub>FE</sub> h <sub>FE</sub> * (Ω)	h <sub>FE</sub> h <sub>FE</sub> * (×10 <sup>-4</sup> )	h <sub>FE</sub> h <sub>FE</sub> * (μS)	f <sub>αB</sub> f <sub>r</sub> * (Mc)		
1	2	3	4	5					6		7		8				9	10	11	12

- 1 TYPE NUMBER
- 2 ORIGINAL MANUFACTURER
- 3 USES
- 4 MATERIAL AND STRUCTURE
- 5 MAXIMUM RATINGS
- 6 I<sub>CBO</sub> MAXIMUM VALUE AND V<sub>CB</sub> VALUE (CRITERIA FOR MEASURING I<sub>CBO</sub>)
- 7 STANDARD VALUE OF DC/PULSE h<sub>FE</sub> AND V<sub>CE</sub>, I<sub>C</sub> (CRITERIA FOR MEASURING DC/PULSE h<sub>FE</sub>)
- 8 STANDARD VALUE OF h PARAMETERS AND BIAS V<sub>CB</sub>, I<sub>E</sub> (CRITERIA FOR MEASURING h PARAMETERS)

- \* INDICATES VALUE IN GROUNDED-BASE OPERATION, OTHERWISE VALUE IN EMITTER-GROUNDED OPERATION.
  - 9 f<sub>αB</sub> OF RF CHARACTERISTIC, EXCEPT IN CASE OF \* WHICH INDICATES VALUE OF f<sub>r</sub>.
  - 10 C<sub>ob</sub> AND r<sub>bb'</sub> OF RF CHARACTERISTICS EXCEPT IN CASE OF \* IN r<sub>bb'</sub> COLUMN WHICH INDICATES VALUE OF h<sub>ie</sub> (real)
  - 11 OUTLINE
  - 12 REMARKS
- :とコンプリ: COMPLEMENTARY TO .....

型名	社名	用途	構造	最大定格 (T <sub>a</sub> = 25°C)					電 氣 的 特 性 (T <sub>a</sub> = 25°C)										外形	備考				
				V <sub>CB0</sub> (V)	V <sub>EBO</sub> (V)	I <sub>C</sub> (mA)	P <sub>C</sub> (mW)	T <sub>J</sub> (°C)	I <sub>CB0</sub> 最大値		直流又はパルス hFE		バイアス		h <sub>je</sub>	h <sub>ie</sub> h <sub>ib</sub> * (Ω)	h <sub>re</sub> h <sub>rb</sub> * (×10 <sup>-4</sup> )	h <sub>oe</sub> h <sub>ob</sub> * (μU)			f <sub>βT</sub> f <sub>T</sub> * (Mc)	C <sub>ob</sub> (pF)	r <sub>bb</sub> h <sub>ib</sub> (real)* (Ω)	
									μA	V <sub>CB</sub> (V)	I <sub>C</sub> (mA)	V <sub>CB</sub> (V)	I <sub>F</sub> (mA)	h <sub>jb</sub> *										h <sub>ib</sub> * (Ω)
2SC1211	三菱	RF. PA	Si. EP	65	4	500	500	125	1	25	100	2	150	6	-10					130*	10	C <sub>e</sub> r <sub>bb</sub> : 100pS	138B	2SA697 とコンプリ
" 1212	日立	PA	Si. EP <sub>a</sub>	50	4	1 A	8 W (T <sub>c</sub> =25°C)	150	5	50	60~200	4	50	4	-30					160*	30		160	2SA743 とコンプリ
" 1213	"	AF	"	35	4	500	400	125	0.5	20	60~320	3	10									138	2SA673 とコンプリ	
" 1214	"	"	"	50	4	500	600	125	0.5	20	60~320	3	10									138		
" 1215	松下	"	Si. EP	30	3	50	200	125	100	30	100	10	2	10	-10				1200*	C <sub>re</sub> 1pF	30	138		
" 1216	日電	SW	Si. E	40	5	200	300	150	0.1	30	140	1	10	10	-10	t <sub>on</sub> < 20nS, t <sub>off</sub> < 40nS t <sub>sig</sub> < 20nS			500*	3		49C		
" 1217	"	RF. SW	"	150	5	300	750	175	0.1	100	70	10	50	10	-50				250*	3.7	13*	84B	2SA712 とコンプリ	
" 1218	"	"	"	80	5	500	750	175	0.1	50	80	10	50	10	-50				370*	3.5	20*	84B		
★ " 1219	富士通	RF	Si. EP	30	5	500	200	125	1	12	160	2	100	6	-1				60*	12	70*	138		
★ " 1220	"	"	"	50	5	500	200	125	0.5	12	160	2	100	6	-1				60*	12	70*	138		
" 1221																								
" 1222	日電	RF. LN	Si. E	60	5	100	250	125	0.05	60	500	3	0.5	6	-1				100*	3.5	50	138	2SA640 とコンプリ	
" 1223	三菱	PA	Si. EP	30	4	500	800	175	50	15	70	15	30						G <sub>pe</sub> = 13.3dB (f = 220MHz, I <sub>C</sub> = 30mA, V <sub>cc</sub> = 13.5V)			84B		
★ " 1224	"	SW. PA	"	130	5	800	7 W (T <sub>c</sub> =25°C)	150	10	25	100	4	300			t <sub>on</sub> < 0.2 μS, t <sub>off</sub> < 1.2 μS t <sub>sig</sub> < 1 μS							132	
" 1225																								
" 1226	松下	PA	Si. EP	40	5	2 A	10W (T <sub>c</sub> =25°C)	150	1	20	120	5	1 A	5	-500				150*	50	3.3*	161	2SA699 とコンプリ	
" 1227	富士通	SW	Si. TMe	300	5	10 A	100 W (T <sub>c</sub> =25°C)	175	20	150	50	5	5 A	5	-1 A	t <sub>on</sub> < 1 μS, t <sub>off</sub> < 1.5 μS t <sub>sig</sub> < 4 μS			27*			102		
" 1228	"	"	"	500	5	10 A	100 W (T <sub>c</sub> =25°C)	175	20	150	15	5	5 A	5	-1 A	t <sub>on</sub> < 2.5 μS, t <sub>off</sub> < 2.5 μS t <sub>sig</sub> < 4 μS			15*			102		
" 1229	"	"	"	250	5	10 A	100 W (T <sub>c</sub> =25°C)	175	100	150	50	5	5 A	5	-1 A	t <sub>on</sub> < 1 μS, t <sub>off</sub> < 1.5 μS t <sub>sig</sub> < 4 μS			27*			102		
" 1230	"	"	"	450	5	10 A	100 W (T <sub>c</sub> =25°C)	175	100	150	15	5	5 A	5	-1 A	t <sub>on</sub> < 2.5 μS, t <sub>off</sub> < 2.5 μS t <sub>sig</sub> < 4 μS			15*			102		
" 1231	"	"	Si. EP	20	4	200	300	175	0.4	15	60	1	10	10	-10	t <sub>r</sub> < 10nS, t <sub>f</sub> < 15nS t <sub>sig</sub> < 12nS			800*	2		49C		
★ " 1232	"	PA	"	45	3.5	1 A	12W (T <sub>c</sub> =25°C)	175	500	20	50	5	500			P <sub>o</sub> = 6 W (f = 700MHz, V <sub>cc</sub> = 18V, P <sub>i</sub> = 2W)					133			
★ " 1233	"	"	"	45	3.5	2 A	20W (T <sub>c</sub> =25°C)	175	1mA	20	50	5	1 A			P <sub>o</sub> = 11W (f = 700MHz, V <sub>cc</sub> = 18V, P <sub>i</sub> = 4W)					133			
★ " 1234																								
★ " 1235	三洋	RF. PA	Si. T	300	4	100	6.5 W (T <sub>c</sub> =25°C)	150	5	100	30~160	10	50	30	-20				60*	7.5				
" 1236	東芝	LN	Si. EP	20	2	30	200	175	0.1	10	70	10	10	10	-10	NF = 5.0dB (10V, 5mA, 4GHz)	PG = 7.0dB (10V, 10mA, 4GHz)	6500*		0.8	20*	140		
★ " 1237	"	PA	Si. EMe	85	4	2 A	10 W (T <sub>c</sub> =25°C)	150	10	20	40	5	500	5	-100	P <sub>o</sub> = 3.5W (f = 27MHz, V <sub>cc</sub> = 12V, P <sub>i</sub> = 0.4W)			100*	30		268		
★ " 1238	三菱	"	Si. EP	35	4	150	5 W (T <sub>c</sub> =25°C)	175	50	25	50	15	40			PG = 11dB (f = 770MHz, I <sub>C</sub> = 40mA, V <sub>cc</sub> = 15V)					312			
★ " 1239	"	"	"	80	4.5	4 A	12.5 W (T <sub>c</sub> =25°C)	175	10	30	50	10	100			P <sub>o</sub> = 3.4W (f = 27MHz, P <sub>i</sub> = 0.4W, V <sub>cc</sub> = 12V)					97B			
★ " 1240	"	RF	"	40	3	50	350	175	0.1	25	70	10	10	-10				600*	1.5	C <sub>e</sub> r <sub>bb</sub> : 5pS	138B			