

# 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)			C <sub>ob</sub> (pF)
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 気 的 特 性 (T <sub>a</sub> = 25°C)											外形	備考			
				V <sub>CB0</sub>	V <sub>EB0</sub>	I <sub>C</sub>	P <sub>C</sub>	T <sub>J</sub>	I <sub>CB0</sub> 最大値		直 流 又 は パ ル ス h <sub>FE</sub>		バ イ ア ス		h <sub>FE</sub>	h <sub>ie</sub>	h <sub>re</sub>	h <sub>oe</sub>	f <sub>T</sub> *			C <sub>ob</sub>	r <sub>bb</sub>	
				(V)	(V)	(mA)	(mW)	(°C)	(μA)	V <sub>CB(V)</sub>	V <sub>CE(V)</sub>	I <sub>C(mA)</sub>	V <sub>CB(V)</sub>	I <sub>E(mA)</sub>	h <sub>FE</sub> *	(Ω)	(×10 <sup>-4</sup> )	(μU)	(Mc)			(pF)	h <sub>ic(real)</sub> *	
2SC2712																								
" 2713																								
" 2714																								
" 2715																								
" 2716																								
" 2717	東芝	RF	Si, EP	30	4	50	300	125	0.1	30	40-240	12.5	12.5	12.5	-12.5	G <sub>re</sub> = 28-36dB (V <sub>CE</sub> =12.5V, I <sub>C</sub> =12.5mA, f=45MHz)	>300*	0.8-2.0	C <sub>r, rbb'</sub> <25pS	138C				
" 2718	日立	AF	Si, E	60	5	100	250	125	0.1	60	200	6	1	6	-10	N <sub>F</sub> < 15dB (6V, 0.1mA, f=1kHz)	250*	3		138	2SA1151 (トランジスタ)			
" 2719	"	RF, SW	"	80	5	300	600	150	0.1	80	200	1	50	6	-10	t <sub>on</sub> = 50nS, t <sub>off</sub> = 560nS I <sub>sat</sub> = 480nS	140*	7		138	2SA1152 (トランジスタ)			
" 2720	"	"	"	60	5	500	600	150	0.1	40	150	1	150	10	-20	t <sub>on</sub> < 35nS, t <sub>off</sub> < 275nS	400*	3.5		138D	2SA1153 (トランジスタ)			
" 2721	"	"	"	60	5	700	1W	150	0.1	60	200	1	100	6	-10	t <sub>on</sub> = 60nS, t <sub>off</sub> = 650nS I <sub>sat</sub> = 600nS	110*	13		278	2SA1154 (トランジスタ)			
" 2722																								
" 2723																								
" 2724	三菱	RF	Si, E	30	4	30	200	125	1	25	35-180	6	1	6	-1	N <sub>F</sub> = 3dB (6V, 1mA, 10.7MHz)	200*	2	C <sub>r, rbb'</sub> 20pS	175				
" 2725	"	Diff.	"	100	5	100	200/unit	125	0.1	100	600	6	1	6	-1	h <sub>FE1</sub> /h <sub>FE2</sub> = 0.8-1.0 ΔV <sub>BE</sub> < 10mV	100*	2.5		283				
" 2726	日立	RF	"	15	3	20	200	125	1	12	100	4	2	4	-2	G <sub>re</sub> = 16dB, N <sub>F</sub> = 4dB (6V, 2mA, 900MHz)	1100*	0.5	C <sub>r, rbb'</sub> 8 pS	240A				
" 2727	"	RF, LN	"	15	3	20	200	125	1	12	110	4	2	4	-2	G <sub>re</sub> = 21dB, N <sub>F</sub> = 2.3dB (6V, 2mA, 200MHz)	1000*	0.8	C <sub>r, rbb'</sub> 10pS	240C				
" 2728	"	Conv.	"	15	3	50	200	125	1	12	100	4	5	4	-5	G <sub>re</sub> = 14dB, N <sub>F</sub> = 6dB (6V, 5mA, 900MHz)	2500*	1	C <sub>r, rbb'</sub> 12pS	240A				
" 2729	"	"	"	15	3	50	200	125	1	12	80	4	5	4	-5	G <sub>re</sub> = 21dB, N <sub>F</sub> = 4dB (6V, 2mA, 200MHz)	1300*	0.8	C <sub>r, rbb'</sub> 10pS	240C				
" 2730	"	Osc.	"	15	3	50	200	125	1	12	110	4	5	4	-5	V <sub>CE</sub> = 32mV (6V, 6mA, 930MHz)	1600*	0.96	C <sub>r, rbb'</sub> 15pS	240B				
" 2731	"	Conv.	"	20	3	50	200	125	1	16	80	10	5	10	-5	G <sub>re</sub> = 17dB, N <sub>F</sub> = 9.5dB (10V, 3mA, 900MHz)	3500*	1	C <sub>r, rbb'</sub> 9 pS	240A				
" 2732	"	"	"	30	4	20	150	125	1	10	60	10	3	10	-3	G <sub>re</sub> = 14dB, N <sub>F</sub> = 4dB (12V, 2mA, 900MHz)	1000*	0.5	C <sub>r, rbb'</sub> 6 pS	176				
" 2733	"	"	"	30	3	50	150	125	1	10	120	10	10	10	-10	G <sub>re</sub> = 20dB, N <sub>F</sub> = 4dB (12V, 2mA, 200MHz)	1000*	0.8	C <sub>r, rbb'</sub> 12pS	176				
" 2734	"	"	"	20	3	50	150	125	1	10	90	10	10	10	-10	G <sub>re</sub> = 15dB, N <sub>F</sub> = 9dB (12V, 2mA, 900MHz)	3500*	0.9	C <sub>r, rbb'</sub> 10pS	176				
" 2735	"	Osc.	"	30	3	50	150	125	1	10	100	10	10	10	-10	V <sub>CE</sub> = 500mV (12V, 6mA, 300MHz)	1000*	0.9	C <sub>r, rbb'</sub> 10pS	176				
" 2736	"	Conv.	"	30	3	50	150	125	1	15	80	10	5	10	-5	G <sub>re</sub> = 12dB, N <sub>F</sub> = 6dB (12V, 2mA, 900MHz)	2200*	0.6	C <sub>r, rbb'</sub> 11pS	176				
" 2737	日電	LN	"	20	3	80	600	150	1	10	80	8	20	8	-20	(S <sub>21</sub> ) <sub>20</sub> = 11dB, N <sub>F</sub> = 1.2dB (10Hz, 5mA)	8000*	C <sub>r, rbb'</sub> 0.65		138C				
" 2738	松下	SW	Si, TMe	500	7	2A	25W (T <sub>a</sub> =25°C)	150	100	500	> 8	5	1A			t <sub>on</sub> < 1μS, t <sub>off</sub> < 1μS t <sub>st</sub> < 2.5μS					268			
" 2739	"	"	"	500	7	7A	40W (T <sub>a</sub> =25°C)	150	100	500	> 8	5	3A			t <sub>on</sub> < 1μS, t <sub>off</sub> < 1μS t <sub>st</sub> < 2.5μS					268			
" 2740	"	"	"	500	7	10A	100W (T <sub>a</sub> =25°C)	150	100	500	> 8	5	5A			t <sub>on</sub> < 1μS, t <sub>off</sub> < 1μS t <sub>st</sub> < 2.5μS					152			
" 2741	富士通	PA	Si, EP	36	3.5	1A	7W (T <sub>a</sub> =25°C)	175	100	12	50	2	500	12	-100	P <sub>a</sub> = 2.5W (f=175MHz, V <sub>CE</sub> =12.5V, P <sub>i</sub> =50mW)	2000*	5	7*	169				