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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 気 的 特 性 (T <sub>a</sub> = 25°C)										外 形	備 考						
				V <sub>CEO</sub> (V)	V <sub>EB0</sub> (V)	I <sub>C</sub> (mA)	P <sub>C</sub> (mW)	T <sub>J</sub> (°C)	I <sub>CEO</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>FE</sub> *	h <sub>ie</sub> h <sub>ie</sub> * (Ω)	h <sub>re</sub> h <sub>re</sub> * (×10 <sup>-4</sup> )	h <sub>oe</sub> h <sub>oe</sub> * (μΩ)			f <sub>β</sub> f <sub>T</sub> * (Mc)	C <sub>ob</sub> (pF)	r <sub>bb'</sub> h <sub>ie'(real)</sub> * (Ω)			
									(μA)	V <sub>CB</sub> (V)	V <sub>CE</sub> (V)	I <sub>C</sub> (mA)	V <sub>CB</sub> (V)	I <sub>E</sub> (mA)												
2SC1631	ソニー	RF.LN	Si.PaMe	25	6	200	250	100	0.2	25	200	3	1	6	-0.1	170	36k	2.4	3.3	h <sub>FE</sub> =3dB (f=100MHz)	4.5	C <sub>e</sub> r <sub>bb'</sub> 300pS	138			
" 1632	"	"	"	50	6	200	320	120	0.2	25	200	3	1	6	-2					h <sub>FE</sub> =1.0dB (f=100MHz)	4.5	C <sub>e</sub> r <sub>bb'</sub> 300pS	138			
" 1633	"	"	"	25	6	200	320	120	0.2	25	200	3	1							h <sub>FE</sub> =1.4dB (f=100MHz)	4.5	C <sub>e</sub> r <sub>bb'</sub> 300pS	138			
" 1634	"	"	"	50	6	200	320	120	0.2	25	200	3	1	6	-2					h <sub>FE</sub> =1.0dB (f=100MHz)	4.5	C <sub>e</sub> r <sub>bb'</sub> 300pS	138			
" 1635	富士通	SW	Si.EP	70	5	1A	800	175	0.3	40	50	1	500							t <sub>on</sub> <35nS, t <sub>off</sub> <55nS t <sub>stg</sub> <50nS				123		
" 1636	ソニー	LN.SW	Si.E	50	25	20	300	120	0.2	50	300	3	1	6	-2					NF=2dB (6V, 0.1mA, f=10Hz)	30*	4		138		
" 1637	"	"	"	50	25	20	250	120	0.2	50	66-525	3	1	10	-1							20*	4	C <sub>e</sub> r <sub>bb'</sub> 30pS	138	
" 1638	富士通	RF	Si.EP	40	3	300	600	175	0.5	20	100	10	20	10	-20							1400*	3	40	85C	
" 1639	東洋電機	RF.AF	"	25	5	30	250	125	1	15	270	3	0.5	5	-10							200*	3.5	C <sub>e</sub> r <sub>bb'</sub> 120pS	138	
" 1640	"	RF.LN	"	25	5	30	250	125	1	15	560	3	0.5	5	-10					NF=3dB (5V, 1mA, f=1kHz)	200*	3	C <sub>e</sub> r <sub>bb'</sub> 120pS	138		
" 1641	"	RF.AF	"	40	5	150	300	125	1	24	390	3	10	5	-20							250*	4.5	C <sub>e</sub> r <sub>bb'</sub> 150pS	138	
" 1642	"	"	"	25	5	150	300	125	1	15	390	3	10	5	-20							250*	4.5	C <sub>e</sub> r <sub>bb'</sub> 150pS	138	
" 1643	"	AF.SW	"	40	5	30	250	125	1	24	220	3	10							t <sub>on</sub> <200nS, t <sub>off</sub> <300nS t <sub>stg</sub> <200nS					138	
" 1644	"	"	"	25	5	30	250	125	1	15	220	3	10							t <sub>on</sub> <200nS, t <sub>off</sub> <300nS t <sub>stg</sub> <200nS					138	
" 1645	"	AF	"	40	6	300	300	125	1	24	>1000	5	100	5	-10							250*	3		138	ターミネーション
" 1646	"	"	"	25	6	300	300	125	1	15	>1000	5	100	5	-10							250*	3		138	ターミネーション
" 1647	"	AF.SW	"	50	5	30	250	125	1	30	270	3	0.5	5	-10							200*	3.5	C <sub>e</sub> r <sub>bb'</sub> 120pS	138	
" 1648	"	RF.LN	"	50	5	30	250	125	1	30	560	3	0.5	5	-10					NF=3dB (5V, 1mA, f=1kHz)	200*	3	C <sub>e</sub> r <sub>bb'</sub> 120pS	138		
" 1649	"	SW	Si.TP	130	5	30	250	125	1	80	56-270	3	5	5	-2							60*	6		138	
" 1650	"	"	"	180	5	30	250	125	1	120	56-270	3	5	5	-2							60*	6		138	
" 1651	"	"	"	210	5	30	250	125	1	150	56-270	3	5	5	-2							60*	6		138	
" 1652	"	AF.SW	Si.EP	40	5	500	300	125	1	20	82-390	3	100	5	-20							250*	6.2		235	2SA874 とコンパチ
" 1653	日電	RF.SW	Si.E	150	5	50	150	125	0.1	100	130	3	15	10	-10					t <sub>on</sub> <0.6μS t <sub>stg</sub> <1.5μS	t <sub>off</sub> <2μS	150*	4.5	15	176	
" 1654	"	"	"	180	5	50	150	125	0.1	100	100	3	15	10	-10					t <sub>on</sub> <0.6μS t <sub>stg</sub> <1.5μS	t <sub>off</sub> <2μS	150*	4.5	15	176	
" 1655	"	RF	"	16	3	30	150	175	0.1	10	100	3	10	6	-20							8000*	C <sub>rr</sub> 0.5	40*	320	
" 1656	"	"	"	10	3	30	150	200	0.1	10	100	3	10	5	-20							7000*	C <sub>rr</sub> 0.4	40*	320	
" 1657	"	RF.SW	"	16	3	30/unit	150/unit	175	0.1	10	100	3	10	6	-20							8000*	C <sub>rr</sub> <0.5		307	2素子組合
" 1658	"	"	"	10	3	30/unit	150/unit	200	0.1	10	100	3	10	5	-20							7000*	C <sub>rr</sub> <0.5		307	"
" 1659	"	RF	Si.E	20	3	80	500	200	0.1	10	100	5	30	6	-30							7000*	C <sub>rr</sub> 0.6	18*	306	
" 1660	"	"	"	20	3	80	500	200	0.1	10	100	5	30	6	-30							7000*	C <sub>rr</sub> 0.6	18*	306	