

T-27-01

Applications	Type No		Electrical Characteristics (T _a = 25°C)													Package								
			Maximum Ratings			h _{FE} (MIN)			V _{CE(sat)} MAX			f _T (TYP) MIN			NF			MAX						
			V _{CEO} (V)	I _C (mA)	P _C (mW)	V _{CE} (V)	I _C (mA)	h _{FE}	V _{CE(sat)} (V)	I _C (mA)	I _B (mA)	f _T (MHz)	V _{CE} (V)	I _C (mA)	NF (dB)			V _{CE} (V)	I _E (mA)	f (MHz)	R _g (Ω)	Fig		
	NPN	PNP																						
	2SC3880S	—	—	30	20	100	6	1	—	40~200	—	6	1	—	(550)	6	1	5.0	6	-1	100	50	SOT-23	F1
	2SC3195	—	—	30	20	100	6	1	—	40~200	—	6	1	—	(550)	6	1	5.0	6	-1	100	50	TO-92(M)	F5
	2SC3194	—	—	30	20	100	6	1	—	25~140	—	6	1	—	(600)	6	*-1	4.0	6	-1	100	50	TO-92(C)	F3
FM/RF. MIX OSC	KTC9016	—	—	30	20	200	5	1	—	40~198	—	5	1	—	260	6	*-1	4.0	6	-1	100	50	TO-92(B)	F3
	KTC9018	—	—	30	20	200	5	1	—	40~198	—	5	1	—	500	10	*-8	4.0	6	-1	100	50	TO-92(B)	F3
	BF599	—	—	25	25	200	10	7	—	(40)	—	10	7	—	275	10	7	—	—	—	—	—	SOT-23	F1
	BFS20	—	—	25	25	200	10	7	—	(40)	—	10	7	—	275	10	7	—	—	—	—	—	SOT-23	F1
FM-IF/AF-IF	2SC3879S	—	—	30	50	150	12	2	0.4	40~240	12	2	0.4	10	100	10	1	*27~33	*6	-1	10.7	50	SOT-23	F1
	2SC3193	—	—	30	50	200	12	2	0.4	40~240	12	2	0.4	10	100	10	1	*27~33	*6	-1	10.7	50	TO-92(M)	F5
	2SC3192	—	—	30	50	300	12	2	0.4	40~240	12	2	0.4	10	100	10	*-1	*27~33	*6	-1	10.7	50	TO-92(C)	F3
	KTC9011	—	—	30	50	400	5	1	0.4	40~198	5	1	0.4	10	100	10	1	—	—	—	—	—	TO-92(B)	F3
AM RF	2SC3878S	—	—	30	100	150	12	2	0.4	40~240	12	2	0.4	10	80	10	2	3.5	10	-1	1	50	SOT-23	F1
	2SC3191	—	—	30	100	200	12	2	0.4	40~240	12	2	0.4	10	80	10	2	3.5	10	-1	1	50	TO-92(M)	F5
	2SC3190	—	—	30	100	400	12	2	0.4	40~240	12	2	0.4	10	80	10	*-2	3.5	10	-1	1	50	TO-92(C)	F3

*: I_E *; G_{PE} *: V_{CC}

Applications	Type No		Electrical Characteristics (Ta = 25°C)										Package						
			Maximum Ratings					G _{PE}							MAX				
			V _{CE0} (V)	I _C (mA)	P _C (mW)	h _{FE}	(MIN)	V _{CE(sat)} (V)	I _C (mA)	I _B (mA)	f _T (MHz)	V _{CE} (V)			I _C (mA)	V _{CE} (V)	I _C (mA)	f (MHz)	
VIII RI	NPN	KTC2348	30	20	250	20~200	10	2	—	—	400	10	2	20~28	0	0	TO-92(C)	F3	
			15	50	150	40~200	3	8	—	—	650	10	8	*1.3	*10	—	—	SOT-23	F1
VIII OSC	NPN	KTC2349	15	50	250	(20)	3	8	—	—	600	10	8	*1.5	*10	—	—	TO-92(C)	F3
			15	100	200	(20)	1	3	0.4	10	1	600	10	4	*1.7	*10	—	—	SOT-23
Iuner	NPN	KTC3347	15	50	250	(20)	3	8	—	—	650	10	8	*1.5	*10	—	—	TO-92(C)	F3
			15	50	150	40~200	10	5	—	—	1,500	10	2	*0.9	10	—	—	SOT-23	F1
VIII OSC	NPN	KTC3121S	15	50	150	60~320	3	8	—	—	1,100	10	8	*1.3	*10	—	—	SOT-23	F1

IX PIF	25	50	150	20~200	10	10	0.2	15	1.5	250	10	10	*1.6	*10	—	—	SOT-23	F1	
	40	50	250	(30)	10	4	—	—	—	400	10	4	32~40	12	4	—	—	TO-92(C)	F3
	25	50	300	20~200	12.5	12.5	0.2	15	1.5	300	12.5	12.5	28~36	12.5	12.5	—	—	TO-92(C)	F3

*C_{ob}, *C_{re}, *V_{CE}

Applications	Type No		Electrical Characteristics (Ta = 25°C)										Package								
			Maximum Ratings					TYP							TYP						
			V _{CE0} (V)	I _C (A)	P _C (W)	h _{FE}	(MIN)	V _{CE(sat)} (V)	I _C (mA)	I _B (mA)	f _T (MHz)	V _{CE} (V)			I _C (mA)	V _{CE} (V)	I _C (mA)	C _{ob} (PF)	V _{CB} (V)	f (MHz)	
IX Vertical Output	NPN	25C3205	30	2	1	100~320	2	500	2.0	1.5A	30	120	2	500	2	500	30	10	1	TO-92L	F4
			30	3	1.5	40~400	2	500	0.8	2A	0.2A	100	100	2	500	2	500	35	10	1	TO-220IS
IX Vertical Output	NPN	25C4369	150	1.5	20	40~140	10	500	1.5	500	50	4	10	500	10	500	35	10	1	TO-220IS	F7
			60	3	2.5	60~300	5	500	1.0	3A	0.3A	3.0	5	500	5	500	70	10	1	TO-220IS	F7
IX Vertical Output	NPN	25D2058A	60	3	2.5	60~100	5	500	1.0	3A	0.3A	9	5	500	5	500	150	10	1	TO-220IS	F7
			30	3	10	70~240	2	500	0.8	2A	0.2A	100	2	500	2	500	35	10	1	TO-220AB	F6
IX Vertical Output	NPN	25DI351A	60	3	2.5	60~300	5	500	1.0	3A	0.3A	3.0	5	500	5	500	70	10	1	TO-220AB	F6
			60	3	30	60~200	5	500	1.0	3A	0.3A	9	5	500	5	500	150	10	1	TO-220AB	F6
IX Vertical Output	NPN	KTC2073	150	1.5	25	40~140	10	500	1.5	500	50	4	10	500	10	500	35	10	1	TO-220AB	F6

*Under Development

Applications	Type No		Maximum Ratings Tc = 25°C						Electrical Characteristics (Ta = 25°C)										Package	Fig			
	NPN	PNP	V _{CEO} (V)	I _C (A)	P _C (W)	h _{FE}	(MIN)		MAX		V _{CE(sat)}		V _{BE(sat)}		MAX		SW time (TYP) MAX						
							V _{CE} (V)	I _C (A)	I _C (A)	I _B (A)	V _{CE} (V)	I _C (A)	V _{BE} (V)	I _B (A)	I _C (A)	I _B (A)	t _{on} (μs)	t _{off} (μs)			t _{sig} (μs)	t _r (μs)	
Switching Regulator	2SC4371	—	400	5	30	(12)	5	3	1.0	5	1	1.5	5	1	1.5	5	1	*1.0	2.5	1.0	TO-220IS	F7	
	KTD1947	—	100	10	30	(500)	1	1	0.3	5	0.05	1.2	5	0.05	1.2	5	0.05	(0.5)	(5.0)	(1.0)	TO-220IS	F7	
	KTC3148	—	800	3	40	(10)	5	0.8	0.6	0.8	0.16	1.2	0.8	0.16	1.2	0.8	0.16	*1.0	4.0	1.0	TO-220AB	F6	
	KTC2553	—	400	5	40	(12)	5	3	1.0	5	1	1.5	5	1	1.5	5	1	*1.0	2.5	1.0	TO-220AB	F6	
	KTC2200	—	400	7	40	(10)	5	3	1.5	3	0.3	2.0	3	0.3	2.0	3	0.3	*1.0	2.0	1.0	TO-3P(S)	F11	
	KTC2791	—	800	5	100	(10)	5	10mA	1.0	3	0.6	1.5	3	0.6	1.5	3	0.6	*1.0	3.5	1.0	TO-3P(L)	F12	
	KTC2650	—	400	10	100	(10)	5	5	1.5	5	0.5	2.0	5	0.5	2.0	5	0.5	*1.0	2.5	1.0	TO-3P(L)	F12	
	KTC3680	—	800	7	120	(10)	5	10mA	1.0	3	0.6	1.5	3	0.6	1.5	3	0.6	*1.0	3.5	1.0	TO-3P(L)	F12	
	BUV48A	—	450	15	(150)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	BUV48C	—	700	15	(175)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Darlington	KTD686	—	80	4	30	(2000)	2	1	1.5	3	6mA	2	3	6mA	2	3	6mA	0.2	1.5	0.6	TO-220AB	F6	
	BU806	—	200	8	(60)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

* t_r

Applications	Type No		Maximum Ratings										Electrical Characteristics (Ta = 25°C)										Package	Fig
	NPN	PNP	V _{CEO} (V)	I _C (mA)	P _D (mW)	h _{FE}	(MIN)		MAX		V _{CE(sat)}		f _T		MIN		SW Time							
							V _{CE} (V)	I _C (mA)	I _C (mA)	I _B (mA)	V _{CE} (V)	I _C (mA)	f _T (MHz)	I _C (mA)	V _{CE} (V)	I _C (mA)	t _{on} (ns)	t _{off} (ns)	t _{sig} (ns)	t _r (ns)				
Switching	2N3904	2N3906	40	200	625	*100~300	1.0	10	0.2	10	1.0	300	20	10	10	35	35	200	50	TO-92(B)	F3			
	—	2N5401	150	600	625	*60~240	5.0	1.0	0.2	10	1.0	100	10	10	10	—	—	—	—	TO-92(B)	F3			
	2N5551	—	160	600	625	*80~250	5.0	10	0.2	50	5.0	100	10	10	10	—	—	—	—	TO-92(B)	F3			
	KTN2369	—	15	500	625	*40~120	1.0	10	0.25	10	1.0	500	10	10	12	—	—	13	—	TO-92(B)	F3			
KTN2369A	—	15	500	625	*40~120	1.0	10	0.3	10	1.0	500	10	10	12	—	—	13	—	TO-92(B)	F3				
KTN2222	KTN2907	30	600	625	(50)	10	1.0	0.4	150	15	250	20	20	—	10	25	225	60	TO-92(B)	F3				
KTN2222A	KTN2907A	40	600	625	(50)	10	1.0	0.3	150	15	300	20	20	—	10	25	225	60	TO-92(B)	F3				
—	*MPSA92	300	500	625	*125	10	1.0	0.5	20	2.0	50	20	10	10	—	—	—	—	—	TO-92(B)	F3			
—	*MPSA93	200	500	625	*125	10	1.0	0.4	20	2.0	50	20	10	10	—	—	—	—	—	TO-92(B)	F3			

*Pulse width ≤ 100μs, Duty Cycle ≤ 2.0%

* Under Development

Applications	Type No		Electrical Characteristics (Ta = 25°C)										Package					
			Maximum Ratings			h _{FE}		V _{CE(sat)}		f _T		C _{ob}			TYP			
	NPN	PNP	V _{CE0} (V)	I _C (A)	P _C (W)	V _{CE} (V)	I _C (mA)	V _{CE(sat)} (V)	I _C (mA)	I _B (mA)	V _{CE} (V)	f _T (MHz)	V _{CE} (V)	I _C (mA)	V _{CE} (V)	f _T (MHz)	Fig	
27MHz Drive/Output	KTC2036A	—	80	1	1.2	100	2	150	0.7	500	20	150	10	100	12	10	1	F8
	KTC2075	—	80	4	>10	25	5	0.5A	1.5	3A	0.3A	100	5	500	40	V _{CE} = 10	1	TO-202 TO-220AB
High & Low V _{CE(sat)}	KTC3112	—	50	0.15	0.4	600~3600	6	2	0.25	100	10	250	10	10	3.5	10	1	TO-92L
	KTD1582	—	50	1	1	800~3200	5	0.3A	0.3	0.5A	5	250	10	(0.5A)	18	10	1	TO-92L
Strobo Flash	2SC3226	—	10	2	0.9	140~600	1	0.5A	0.5	2A	50	150	1	0.5A	27	10	1	TO-92L
	2SC4377	—	30	2	*1	140~600	1	0.5A	0.5	2A	50	150	1	0.5A	27	10	1	SOT-89
	—	KTA1242	20	5	*10	100~320	2	0.5A	1	4A	0.1A	170	2	0.5A	62	10	1	SMP-3
Muting	*KTC2878	—	20	0.3	0.4	200~1200	2	4	0.3	30	3	30	6	4	4.8	10	1	TO-92(C)

Pc: Tc = 25°C Pc*: mounted on ceramic substrate (250mm² × 0.81)