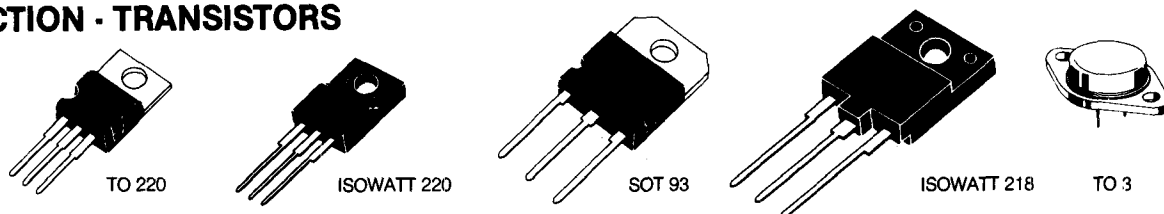
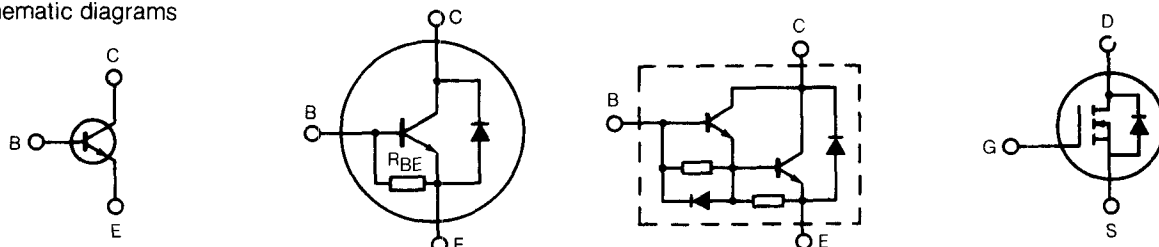


TV, MONITORS AND VCR CIRCUITS

DEFLECTION - TRANSISTORS



Internal schematic diagrams



HIGH DEFINITION COLOUR MONITORS HORIZONTAL DEFLECTION

These NPN transistors feature very fast switching times typically 3 to 5 times faster than 1500 V products designed several years ago.

I _c (A)	V _{CEs} (V)	V _{CEO} (V)	P _{tot} (W)	Package	Type	V _{CE(sat)} @		
						(V)	I _c (A) h _{FE} = 5	I _c (A) h _{FE} = 7
4.00	1200	600	70	TO 220	SGSF 324	1.50	1.75	1.25
4.00	1200	600	45	ISOWATT 218	SGSIF 424	1.50	1.75	1.25
4.00	1200	600	35	ISOWATT 220	SGSIF 324	1.50	1.75	1.25
4.00	1200	600	80	SOT 93	SGSF 424	1.50	1.75	1.25
4.00	1300	600	45	ISOWATT 218	SGSIF 425	1.50	1.25	1.00
4.00	1300	600	80	SOT 93	SGSF 425	1.50	1.25	1.00
7.00	1200	600	85	TO 220	SGSF 344	1.50	3.50	2.50
7.00	1200	600	35	ISOWATT 220	SGSIF 344	1.50	3.50	2.50
7.00	1200	600	95	SOT 93	SGSF 444	1.50	3.50	2.50
7.00	1300	600	55	ISOWATT 218	SGSIF 445	1.50	3.00	2.00
7.00	1300	600	95	SOT 93	SGSF 445	1.50	3.00	2.00
10.00	1200	600	65	ISOWATT 218	SGSIF 464	1.50	6.00	3.50
10.00	1200	600	150	TO 3	SGSF 564	1.50	6.00	3.50
10.00	1200	600	125	SOT 93	SGSF 464	1.50	6.00	3.50
10.00	1300	600	65	ISOWATT 218	SGSIF 465	1.50	5.00	3.00
10.00	1300	600	150	TO 3	SGSF 565	1.50	5.00	3.00
10.00	1300	600	125	SOT 93	SGSF 465	1.50	5.00	3.00
20.00	1200	600	250	TO 3	SGSF 664	1.50	12.00	7.00
20.00	1300	600	250	TO 3	SGSF 665	1.50	10.00	6.00

The ISOWATT 218 isolated power package gives a simple solution to device mounting problems. It offers one hole mounting, may be easily paralleled and with 2500 V AC isolation and long creepage distances makes it easy to achieve the standards required by VDE, UL, IEC etc. The power dissipation is equivalent to a non isolated SOT 93 (TO 218) device mounted with external electrical isolation.

COLOUR TV HORIZONTAL DEFLECTION

I _c (A)	V _{CBO} (V)	V _{CEO} (V)	P _{tot} (W)	Package	Type	V _{CE(sat)} @		
						(V)	I _c (A)	I _B (A)
2.5	1500	600	45	ISOWATT 218	2SD 1429 FI	8	2	0.6
3.5	1500	600	55	ISOWATT 218	2SD 1430 FI	8	3	0.8
4	1500	700	—	SOT 93	2SD 1441	1	3	1
5	1500	600	60	ISOWATT 218	2SD 1431 FI	5	4	0.8
5	1500	700	—	SOT 93	2SD 1730	8	4	1
5	1500	700	—	SOT 93	2SD 1455	5	4.5	1.2
5	1500	700	50	ISOWATT 218	2SD 1577 FI	2	4.5	2
6	1500	600	60	ISOWATT 218	2SD 1432 FI	5	5	1
6	1500	700	—	SOT 93	2ST 3460	2	3	0.6
7	1500	700	60	ISOWATT 218	2ST 2000 FI	1	4	2
7.5	1500	700	—	SOT 93	2ST 2000	1	4	2
7.5	1500	700	60	ISOWATT 218	S 2000 FI	5	4.5	2
8	1500	700	50	ISOWATT 218	BU 508 FI	5	4.5	2
8	1500	700	50	ISOWATT 218	BU 508 AFI	1	4.5	2
8	1500	700	50	ISOWATT 218	BU 508 DFI*	1	4.5	2
8	1500	700	125	SOT 93	BU 508	5	4.5	2
8	1500	700	125	SOT 93	BU 508A	1	4.5	2
8	1500	700	125	SOT 93	BU 508D*	1	4.5	2
8	1500	700	150	TO 3	BU 208	5	4.5	2
8	1500	700	150	TO 3	BU 208A	1	4.5	2
8	1500	700	150	TO 3	BU 208D*	1	4.5	2

* Transistors with integral damper diode.

POWER BIPOLAR

«FASTSWITCH» SERIES
(Hollow Emitter, E.T.D.)

I _C (A)	V _{CB0} V _{CEV} [*] (V)	V _{CEO} (V)	P _{tot} (W)	Package	Type NPN	V _{CE (sat)} @		I _C (A)	I _B (A)	t _r t _d + t _r [*] (1) max (μs)	t _{sl} t _s [*] max (μs)	t _{fl} t _f [*] max (μs)
						max (V)						
4	1200	600	70	TO 220	SGSF324	1.5		1.75	0.35	1 *	4.5* (1)	0.35* (1)
4	1200	600	35	ISOWATT 220	SGSF324	1.5		1.75	0.35	1 *	4.5* (1)	0.35* (1)
4	1200	600	45	ISOWATT 218	SGSF424	1.5		1.75	0.35	1 *	4.5* (1)	0.35* (1)
4	1200	600	80	SOT 93	SGSF424	1.5		1.75	0.35	1 *	4.5* (1)	0.35* (1)
4	1300	600	45	ISOWATT 218	SGSF425	1.5		1.75	0.35	1 *	4.5* (1)	0.35* (1)
4	1300	600	80	SOT 93	SGSF425	1.5		1.25	0.25	1 *	4.5* (1)	0.35* (1)
4	1300	600	35	ISOWATT 220	SGSF325	1.5		1.25	0.25	1 *	4.5* (1)	0.35* (1)
5	850	400	45	ISOWATT 218	SGSF421	1.5		3.5	0.7	1 *	2.5* (1)	0.3 * (1)
5	850	400	70	TO 220	SGSF321	1.5		3.5	0.7	1 *	2.5* (1)	0.3 * (1)
5	850	400	35	ISOWATT 220	SGSF321	1.5		3.5	0.7	1 *	2.5* (1)	0.3 * (1)
5	850	400	80	SOT 93	SGSF421	1.5		3.5	0.7	1 *	2.5* (1)	0.3 * (1)
5	1000	450	45	ISOWATT 218	SGSF423	1.5		2.5	0.5	1 *	2.5* (1)	0.3 * (1)
5	1000	450	35	ISOWATT 220	SGSF323	1.5		2.5	0.5	1 *	2.5* (1)	0.3 * (1)
5	850	450	70	TO 220	SGSF323	1.5		2.5	0.5	1 *	2.5* (1)	0.3 * (1)
5	1000	450	80	SOT 93	SGSF423	1.5		2.5	0.5	1 *	2.5* (1)	0.3 * (1)
7	1200	600	55	ISOWATT 218	SGSF444	1.5		3.5	0.7	1.2*	3.5* (1)	0.3 * (1)
7	1200	600	40	ISOWATT 220	SGSF344	1.5		3.5	0.7	1.2*	3.5* (1)	0.3 * (1)
7	1200	600	85	TO 220	SGSF344	1.5		3.5	0.7	1.2*	3.5* (1)	0.3 * (1)
7	1200	600	115	TO 3	SGSF544	1.5		3.5	0.7	1.2*	3.5* (1)	0.3 * (1)
7	1200	600	95	SOT 93	SGSF444	1.5		3.5	0.7	1.2*	3.5* (1)	0.3 * (1)
7	1300	600	55	ISOWATT 218	SGSF445	1.5		3	0.6	1.2*	3.5* (1)	0.3 * (1)
7	1300	600	40	ISOWATT 220	SGSF345	1.5		3	0.6	1.2*	3.5* (1)	0.3 * (1)
7	1300	600	125	TO 3	SGSF545	1.5		3	0.6	1.2*	3.5* (1)	0.3 * (1)
7	1300	600	95	SOT 93	SGSF445	1.5		3	0.6	1.2*	3.5* (1)	0.3 * (1)
7.5	850*	450	80	TO 220	BUF 405	2		5	1	—	1.8	0.1
7.5	1000*	450	80	TO 220	BUF 405 A	2		5	1	—	1.8	0.1
8	1000	400	40	ISOWATT 220	SGSF343	1.5		4.5	0.9	1 *	2.5* (1)	0.35* (1)
8	1000	450	55	ISOWATT 218	SGSF443	1.5		4.5	0.9	1 *	2.5* (1)	0.35* (1)
8	1000	450	85	TO 220	SGSF343	1.5		4.5	0.9	1 *	2.5* (1)	0.35* (1)
8	1000	450	115	TO 3	SGSF543	1.5		4.5	0.9	1 *	2.5* (1)	0.35* (1)
8	1000	450	95	SOT 93	SGSF443	1.5		4.5	0.9	1 *	2.5* (1)	0.35* (1)
10	850	400	40	ISOWATT 220	SGSF341	1.5		6	1.2	1 *	2.5* (1)	0.35* (1)
10	850	400	55	ISOWATT 218	SGSF441	1.5		6	1.2	1 *	2.5* (1)	0.35* (1)
10	850	400	85	TO 220	SGSF341	1.5		6	1.2	1 *	2.5* (1)	0.35* (1)
10	850	400	115	TO 3	SGSF541	1.5		6	1.2	1 *	2.5* (1)	0.35* (1)
10	850	400	85	SOT 93	SGSF441	1.5		6	1.2	1 *	2.5* (1)	0.35* (1)
10	1200	600	65	ISOWATT 218	SGSF464	1.5		6	1.2	1.2*	3.5* (1)	0.4 * (1)
10	1200	600	150	TO 3	SGSF564	1.5		6	1.2	1.2*	3.5* (1)	0.4 * (1)
10	1200	600	125	SOT 93	SGSF464	1.5		6	1.2	1.2*	3.5* (1)	0.4 * (1)
10	1300	600	65	ISOWATT 218	SGSF465	1.5		5	1	1.2*	3.5* (1)	0.4 * (1)
10	1300	600	150	TO 3	SGSF565	1.5		5	1	1.2*	3.5* (1)	0.4 * (1)
10	1300	600	125	SOT 93	SGSF465	1.5		5	1	1.2*	3.5* (1)	0.4 * (1)
12	1000	450	65	ISOWATT 218	SGSF463	1.5		7	1.4	1.7*	2.3* (1)	0.5 * (1)
12	1000	450	150	TO 3	SGSF563	1.5		7	1.4	1.7*	2.3* (1)	0.5 * (1)
12	1000	450	125	SOT 93	SGSF463	1.5		7	1.4	1.7*	2.3* (1)	0.5 * (1)
15	850	350	65	ISOWATT 218	SGSF461	1.5		10	2	1.7*	2.3* (1)	0.5 * (1)
15	850	350	150	TO 3	SGSF561	1.5		10	2	1.7*	2.3* (1)	0.5 * (1)
15	850	350	125	SOT 93	SGSF461	1.5		10	2	1.7*	2.3* (1)	0.5 * (1)
15	850*	450	85	TOP 3I	BUF 410 I (2)	0.5		10	2	—	1.8	0.1
15	850*	450	125	SOT 93	BUF 410 (2)	0.5		10	2	—	1.8	0.1
15	1000*	450	85	TOP 3I	BUF 410 AI (2)	0.5		10	2	—	1.8	0.1
15	1000*	450	125	SOT 93	BUF 410 A (2)	0.5		10	2	—	1.8	0.1
20	1200	600	250	TO 3	SGSF664	1.5		12	2.4	1.2*	3.5* (1)	0.4 * (1)
20	1300	600	250	TO 3	SGSF665	1.5		10	2	1.2*	3.5* (1)	0.4 * (1)
24	1000	450	250	TO 3	SGSF663	1.5		14	2.8	1.7*	2.3* (1)	0.5 * (1)
30	850	400	250	TO 3	SGSF661	1.5		20	4	—	2	0.1
30	850*	450	115	TOP 3I	BUF 420 I (2)	0.5		20	4	—	2	0.1
30	850*	450	200	SOT 93	BUF 420 (2)	0.5		20	4	—	2	0.1
30	1000*	450	115	TOP 3I	BUF 420 AI (2)	0.5		20	4	—	2	0.1
30	1000*	450	200	SOT 93	BUF 420 A (2)	0.5		20	4	—	2	0.1

For switching times, T_j = 100°C unless otherwise specified.

(1) T_j = 25°C.

(2) E.T.D. : Easy to drive.