

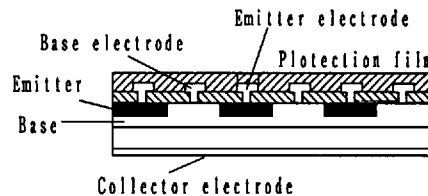
Transistors for Very High-Definition CRT Display Horizontal Deflection Output Use (2)

Structure and Features of MBIT (Multi Base Island Transistor)

Structure patterned with a large number of units consisting of base island and emitter region as shown in Fig.1. One unit transistor is $200\mu\text{m} \times 200\mu\text{m}$ in size, making high-speed operation possible. By operating in parallel several hundreds of unit transistors arranged on a chip as shown in Photo 2, high-current high-speed switching can be accomplished.

MBIT Structure(Fig 1)

Chip Photo 2



Horizontal Output Use with High-speed Damper Diode (Adoption of MBIT process)

A horizontal deflection output-use transistor using MBIT process and a high-speed damper diode are contained in a single package.

Features *High speed *High breakdown voltage *Can economize space in a set.

Type No. with Damper Diode	Package	Absolute Maximum Ratings /Ta=25℃				Electrical Characteristics /Ta=25℃									
		V _{CBO} (V)	V _{CEO} (V)	I _C (A)	P _T Tc=25℃ (W)	V _{CE} (V)	I _C (A)	h _{FE} min	I _C	I _B	V _{CE(sat)}	t _f	I _F	V _F	t _{rr}
									(A)	(A)	max(V)	(μs)	(A)	max(V)	(μs)
HPA 7 2 R	TO-3PML	1500	800	7	60	5	1	8	4	1	5	0.2	4	3	1
HPA 1 0 0 R	TO-3PBL			10	150			8	6	1.5			6		1
HPA 1 5 0 R				15	180			8	10	2.5			10		
HPA 2 0 1 R	TO-3JML			20	100			20-30	16	4			10		1.5
HPA 2 5 1 R				25	120			8	16	4			16		

hFE Rank HPA72R:(5V, 4A). HPA100R:(5V, 6A). HPA150R:(5V, 10A). HPA251R:(16A hFE(2))

4	2	6	5	3	8	7	4	10
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High-speed Diode for Display Horizontal Deflection Damper Use

Features *High breakdown voltage *High reliability. *One-point fixing type plastic molded package facilitating easy mounting and heat radiation

*: Packages of center-lead-cut type. iop:Under conditions of PW≤100μs, duty≤50%. The sign "-" is omitted.

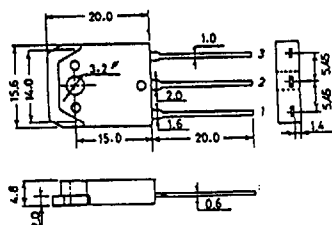
Type No.	Package	Absolute Maximum Ratings/Ta=25°C			Electrical Characteristics/Ta=25°C										
		V _{RRM} (V)	I _O (A)	i _{op} (A)	I _R (mA)	V _{Rmin} (V)	I _F (A)	V _{Fmax} (V)	V _R (V)	I _{Rmax} (μA)	t _{rrmax} (μs)	t _{frtyp} (μs)	c _{jtyp} (pF)	R _{thj-cmax} (°C/W)	
DD 5 0 R	TO-3PB		5	20			5	2			1		90	1.25	
DD 5 2 RC	*TO-3PML		5	20			5	1.8			1.5		40	2.5	
DD 5 4 RCL S	*TO-220FI(LS)	1500	5	20	1	1500	5	1.8	1000	200	1.5	0.1	40	3.75	
DD 8 2 RC	*TO-3PML		8	32			8	1.8			1.5		90	2	
DD 8 4 RCL S	*TO-220FI(LS)		8	32			8	1.8			1.5		90	3.4	
DD 5 4 SCL S	*TO-220FI(LS)	1600	5	20	1	1600	5	1.8	1000	200	1.5	0.1	40	3.75	
DD 8 2 SC	*TO-3PML		8	32			8	1.8			1.5		90	2	
DD 8 4 SCL S	*TO-220FI(LS)		8	32			8	1.8			1.5		90	3.4	

*Recommended Applicable Horizontal Output-use Transistors

SANYO:TO-3JML 1:Base, 2:Collector, 3:Emitter.

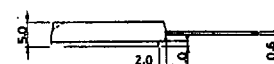
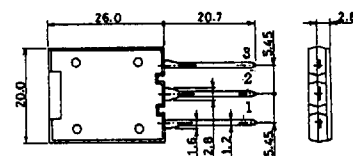
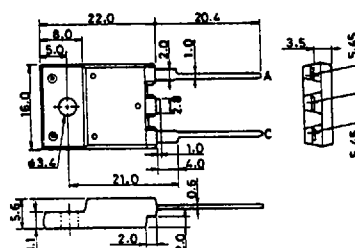
Damper Diode	Recommended Horizontal Output-use Transistors
DD 5 4 RCL S	2SC3894, 2SC3895, 2SC3896, 2SC3897, 2SC4770, 2SC4923, 2SC4924.
DD 5 0 R	2SC3995, 2SC3996, 2SC3997, 2SC3998, 2SC4890, 2SC4891.
DD 5 2 RC	2SC3897, 2SC4890, 2SC4891, 2SC3995, 2SC3996, 2SC3997, 2SC3998
DD 8 2 RC	
DD 8 4 RCL S	2SC5042, 2SC5044, 2SC5045, 2SC5046, 2SC5047. 2SC5450, 2SC5451, 2SC5452, 2SC5453
DD 5 4 SCL S	
DD 8 2 SC	
DD 8 4 SCL S	

Case Outlines(unit:mm) SANYO:TO-3PB
1:NC, 2:Cathode, 3:Anode

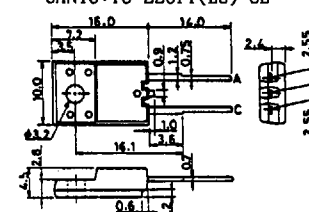


SANYO:TO-3PML-SB

A:Anode, C:Cathode



SANYO:TO-220FI(LS)-SB



These specifications are subject to change without notice.

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