

4. Power Bipolar Transistors

4.1 Introduction

This power bipolar transistor line-up contains data on the range of Hitachi's discrete devices for applications in industrial, automotive, computer and consumer equipment.

4.2 Planar Process Technology

Planar technology is an optimisation of the mutliexpitaxial planar process. This new technology is used to produce high voltage, very fast switching transistors with lower switching and conduction losses, ideally for professional and industrial equipment such as power supplies, power conversion and motion controls.

4.3 Product Range

Table 17 : Power Switching Transistors Range

Package	Type Number	Absolute Maximum Ratings			Typical Electrical Characteristics				
		V _{CEO} (V)	V _{CE0} (V _{CEs}) (V)	I _C (A)	V _{CE(sat)} (V) max	f _T (µs) max			
TO-126 MOD	28C2899	400	500	0.5	1	1			
	28D781	60	150	2	0.6	0.6			
	28D975				0.5				
TO-220AB	28B566	-50	-70	-4	-1	0.5 typ			
	28B566A	-60							
	28C2612	400	500	3	1	1			
	28C2613								
	28C2613								
	28C2816								
	28C2898								
	28C2979	800	900	3	0.5 typ				
	28D476	50	70	4					
	28D476A	60	200						
	28D1136	80							
	28D1137	100				100			
	28D1138	150				200			
	28D1163	120				300			
	28D1163A	150				350			
28D1527	1000	-				0.5			
TO-220FM	28B1392	-60				-70	-4	-1	-
	28B1530	-150				-200	-2	-3	
	28D2107	60				70	4	1	
	28D2337	150				200	2	3	
	28D2344					350	7	1.5	
DPAK	28C4499	400				500	0.5	1	1
	28D2115	60			150	2	0.8	0.6	
TO-3P	28C3322	800		900	3	1	1		
	28C3336	400	500	15	0.5				
	28C3365			10	1				
	28C4742	-	1500	6	2	0.4			
	28C4743	800	1200		1	1			
	28C4798	500			2	0.5			
	28C4799	80	300	3	5	0.8			
	28D2293	-	1500						
	28D2294	800				1			
	28D2295	-				5	0.8		
	28D2296	800				6			
28D2297	-	800							
28D2298	800								
TO-3P-L	28C4789	800		1500	25	5	0.5		
	28C4880	900	1700	12					
	28C4897	800	1500	30					

Table 17 : Power Switching Transistors Range Cont'd

Package	Type Number	Absolute Maximum Ratings			Typical Electrical Characteristics		
		V _{CEO} (V)	V _{CE(s)} (V)	I _C (A)	V _{CE(sat)} (V) max	f _T (μs) max	
TO-3P-FM	2SC4589	800	1500	10	5	0.5	
	2SC4692			12	5		
	2SC4744	-		2			
	2SC4745	800			6		
	2SC4746				8		
	2SC4747	10	5	0.3			
	2SC4796	900		1700	6	0.5	
	2SC4797	-		1500	8	0.3	
	2SC4774	900		1700	10	0.5	
	2SC4779	-		1500	3	0.8	
	2SD2299	-		1500	5	1	
	2SD2300	800			6	0.8	
	2SD2301	-			5		
	2SD2311	-			5		
	TO-3	2SC2818		400	500	10	1
2SC2818 (H)							
2SC2819							
2SC2819 (H)							
2SC2820		80	350	20	2	1	
2SC4697		800	1500	6	5	0.5	
2SC4739							
2SC4740							
2SC4741							
2SC4800		500	1200	5	1	1	
2SC4801		800	1700	6	2	0.6	
2SC4802		-	1500	5	2	0.5	
2SC4803		400	1000	6			
2SD1094		-	1500	10	1	1	
2SD2287		-		3	5	0.8	
2SD2288		800		5		1	
2SD2289		-				5	0.8
2SD2290		800				6	1
2SD2291		-				5	0.8
2SD2292		800				6	0.8