

NPN Silicon Transistors

NPN Silicon Epitaxial Planar Transistors ($I_C = 1$ A) in TO-39 (\approx TO-5) metal case

Type	Maximum ratings					Characteristics at $T_{amb} = 25$ °C				
	V_{CB0} V	V_{CE0} V	V_{EB0} V	I_C A	P_{tot} W	P_{tot} W	T_j °C	θ_{case} (θ_{amb}) °C/W	I_{CB0} nA (I_{CE0} μ A)	V_{CB} V (V_{CE} V)
BSY 81	40	18	5	1	0,9	5	200	< 35 (< 194)	< 100	30
BSY 82	40	18	5	1	0,9	5	200	< 35 (< 194)	< 100	30
BSY 83 \approx BSY 40, 2 N 2297	80	35	7	1	0,9	5	200	< 35 (< 194)	< 10	60
BSY 84	80	35	7	1	0,9	5	200	< 35 (< 194)	< 10	60
BSY 85 \approx 2 N 2193 A	120	64	7	1	0,9	5	200	< 35 (< 194)	< 10	90
BSY 86	120	64	7	1	0,9	5	200	< 35 (< 194)	< 10	90
BFY 50	80	35	6	1	0,8	(2,8)	200	< 35 (< 220)	< 50	60
BFY 51	60	30	6	1	0,8	(2,8)	200	< 35 (< 220)	< 50	40
BFY 52	40	20	6	1	0,8	(2,8)	200	< 35 (< 220)	< 50	30

Type	Characteristics at $T_{amb} = 25$ °C									
	h_{21E}	h_{21E}	h_{21E}	h_{21E}	h_{21E}	$V_{CE sat}$ V	f_T MHz	@ V_{CE}/I_C V/mA	C_{22b} pF	
BSY 81	> 20	> 35	40 ... 120	> 30	> 15	< 1,2	100	10/50	< 15	
BSY 82	> 35	> 75	100 ... 300	> 40	> 20	< 1,2	120	10/50	< 15	
BSY 83	> 20	> 35	40 ... 120	> 30	> 15	< 1	100	10/50	< 15	
BSY 84	> 35	> 75	100 ... 300	> 40	> 20	< 1	120	10/50	< 15	
BSY 85	> 20	> 35	40 ... 120	> 30	> 15	< 1	110	10/50	< 15	
BSY 86	> 35	> 75	100 ... 300	> 40	> 20	< 1	130	10/50	< 15	
BFY 50	—	(> 20)	(> 30)	—	(> 15)	< 1	100	6/50	(7)	
BFY 51	—	(> 30)	(> 40)	—	(> 15)	< 1,6	110	6/50	(7)	
BFY 52	—	(> 30)	(> 60)	—	(> 15)	< 1,6	120	6/50	(7)	

NPN Silicon Epitaxial Planar Transistors in TO-39 (\approx TO-5) in metal case, for video output stages

Type	Maximum ratings					Characteristics at $T_{amb} = 25$ °C								
	V_{CB0} V	V_{CE0} V	V_{EB0} V	I_C mA	P_{tot} W	T_j °C	h_{21E}	$V_{CE sat}$ V	I_{CB0} nA	V_{CB} V	f_T MHz	@ V_{CE}/I_C V/mA	C_{22b} pF	@ V_{CB0} V
BF 117	.140	(140)	5	100	(1,27)	175	> 25	< 1	< 10	100	80	10/20	2	20
BF 118	250	250	5	100	5	175	> 25	< 1	< 50	200	110	10/30	3,5	30
BF 119	160	160	5	100	5	175	> 25	< 1	< 50	100	110	10/30	3,5	30

NPN Silicon Epitaxial Planar Transistor in TO-18 metal case. Driver for numerical indicator tubes

Type	Maximum ratings					Characteristics at $T_{amb} = 25$ °C					
	V_{CB0} V	V_{CEV} V	V_{EB0} V	I_C mA	P_{tot} mW	T_j °C	h_{21E}	$V_{CE sat}$ V	I_{CB0} nA	θ_{amb} °C/mW	
BSY 79	120	120	5	30	300	175	> 30	0,3 (< 0,5)	< 50	< 0,5	

Red = New Type