

# TO-92 Plastic Package Transistors (NPN)

Maximum Ratings						Electrical Characteristics (Ta=25°C, Unless Otherwise Specified)																	
Type No.	V <sub>CB0</sub> (V)	V <sub>CE0</sub> (V)	V <sub>EBO</sub> (V)	P <sub>D</sub> (W)	I <sub>C</sub> (A)	I <sub>CB0</sub> (μA)	V <sub>CB</sub> (V)	I <sub>CES</sub> (μA)	V <sub>CE</sub> (V)	h <sub>FE</sub>	I <sub>C</sub> & V <sub>CE</sub>	V <sub>CE(SAT)</sub> (V)	V <sub>BE(SAT)</sub> (V)	I <sub>C</sub> (mA)	C <sub>ob</sub> (pF)	f <sub>i</sub> (MHz)	t <sub>off</sub> (ns)	N <sub>F</sub> (dB)	C <sub>re</sub> (pF)	CDIL Case Style			
	Min	Min	Min	@Tc=25°C	Max	Max	Max	Max	Min	Max	Max	Max	Max	Max	Typ	Min	Max	Max	Max	Max			
P2N2222A	75	40	6	0.625	0.8	0.01	60			35	0.1	10	0.3	0.6	1.2	150	8	300	20		100	TO-92-4	
										50	1	10	1		2	500							
										75		10											
										50	150	1											
										100	300	150	10										
40		500	10																				
P2N2369	40	15	5	0.625	0.2	0.4	20			40	120	10	1	0.25	.7	0.85	10	4	500	10		TO-92-4	
										20		100	2										
PBF259	300	300	5	0.625	0.5	0.05	250			25	1	10	1			30	3	40	1		TO-92		
										25		30	10	0.5		30							
PBF259S	300	300	5	0.625	0.5	0.05	250			60	20	10	0.5			30	3	40	10		TO-92		
										25	1	10	1		30								
										25		30	10										
PN2221	60	30	5	0.625	0.6	0.01	50			20	500	10	0.4		1.3	150	8	250	20		TO-92		
										20	150	1	1.6		2.6	500							
										40	120	150	10										
										35		10	10										
										25		1	10										
20		0.1	10																				
PN2221A	75	40	6	0.625	0.6	0.01	60			25	500	10	0.3	.6	1.2	150	8	250	20	285	TO-92		
										20	150	1	1		2	500							
										40	120	150	10										
										35		10	10										
										25		1	10										
20		0.1	10																				
PN2222	60	30	5	0.625	0.6	0.01	50			30	500	10	0.4		1.3	150	8	250	20		TO-92		
										50	150	1	1.6		2.6	500							
										100	300	150	10										
										75		10	10										
										50		1	1										
35		0.1	1																				
PN2222A	75	40	6	0.625	0.8	0.01	60			40	500	10	0.3	.6	1.2	150	8	300	20	285	4	0.001	TO-92
										50	150	1	1		2	500							
										100	300	150	10										
										75		10	10										
										50		1	10										
35		0.1	10																				
PN2369	\$ 40	15	5	0.625	0.2	0.4	20			20	120	100	2	0.25	.7	0.85	10	4	500	10	18	TO-92	
PN2369A	\$ 40	15	5	0.625	0.1	0.03	20			20	120	100	1	0.2	.7	0.85	10	4	500	10	18	TO-92	
										30	30	0.4	0.2		1.15	30							
										40	120	10	1	0.5		1.6	100						
										40		10	0.4										
PN2484	60	60	6	0.625	0.05	0.01	45			800	10	5	0.35		1		6	20	1		TO-92		
										250	1	5											
										200		0.5	5										
										175		0.1	5										
										100	500	0.01	5										
										30		5											
PN3563	30	15	2	0.625	0.05	0.05	15			20	200	8	10			1.7	600	1500	8		TO-92		
PN3564	30	15	4	0.625	0.05	0.05	15			20	500	15	10	0.3		0.97	20	3.5	400	1200	15	TO-92	
PN3565	30	25	6	0.625	0.05	0.05	25			150	600	1	10	0.35		1		4	2	12	1	TO-92	
										70		0.1	10										
PN3566	40	30	5	0.625	0.6	0.05	20			80	2	10	1			100	25	2	35	30	TO-92		
										150	600	10	10										
PN3567	80	40	5	0.625	0.6	0.05	40			40	120	30	1	0.25		150	20	3	30	50	TO-92		
										40		150	1										

\$ NOTE : V<sub>CES</sub>