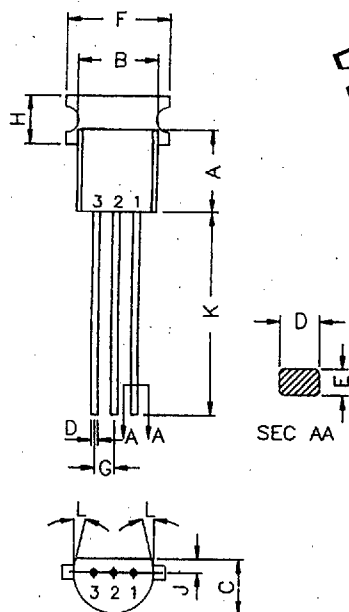




DIM	MIN	MAX
A	4,32	5,33
B	4,45	5,20
C	3,18	4,19
D	0,41	0,55
E	0,35	0,50
F	—	0,55
G	1,14	1,40
H	—	2,54
K	12,70	—
L	5 DEG	

ALL DIMENSIONS ARE IN M.M.

PIN CONFIGURATION AVAILABLE IN TO-237

CDIL Code Style	PIN 1	PIN 2	PIN 3
TO-237	Emitter	Base	Collector
TO-237-1	Base	Collector	Emitter
TO-237-2	Collector	Base	Emitter

TO-237 Plastic Package Transistors (NPN)

Maximum Ratings							Electrical Characteristics (Ta=25°C, Unless Otherwise Specified)												
Type No.	V _{CB0} (V) Min	V _{CE0} (V) Min	V _{EB0} (V) Min	P _D (W) @Tc=25°C	I _C (A)	I _{CM} (A)	I _{CB0} (μA) Max	V _{CB} (V)	I _{FE} @ Min Max	I _C & (mA)	V _{CE} (V)	V _{CE(SAT)} (V) & Max Min	V _{BE(SAT)} (V) Max	I _C @ (mA) Max	C _{ob} (pF) Typ Max	f _t (MHz) Min Typ	I _C (mA) Max	t(off) (ns) Max	CDIL Case Style
2N6705	60	45	5	0.75	1.5		0.1	60	40 40 25	50 250 500	2 2 2	0.5 1		500 1000		50	400 200		TO-237-1
2N6706	80	60	5	0.75	1.5		0.1	80	40 40 25	50 250 500	2 2 2	0.5 1		500 1000		50	400 200		TO-237-1
2N6707	100	80	5	0.75	1.5		0.1	100	40 40 25	50 250 500	2 2 2	0.5 1		500 1000		50	400 200		TO-237-1
2N6711	160	160	7	0.75	0.5		0.05	100	15 15 30	1 200 30	10 10 10					40	200 10		TO-237-1
2N6712	250	250	7	0.75	0.5		0.05	200	15 15 30	1 200 30	10 10 10					40	200 10		TO-237-1
2N6713	300	300	7	0.75	0.5		0.05	250	15 15 30	1 100 30	10 10 10					40	200 10		TO-237-1
2N6714	40	30	5	0.75	1		0.1	40	55 60 50	10 100 250	1 1 1	0.5		100		50	500 50		TO-237-2

TO-237 Plastic Package Transistors (NPN)

CDIL

Maximum Ratings							Electrical Characteristics (Ta=25°C, Unless Otherwise Specified)														
Type No.	V _{CEO} (V) Min	V _{CE0} (V) Min	V _{EBO} (V) Min	P _D (W) @Tc=25°C	I _C (A)	I _{CM} (A)	I _{CEO} (μA) Max	V _{CB} (V)	h _{FE} @ Min Max	I _C & (mA)	V _{CE} (V)	V _{CE(SAT)} (V) & Max Min	V _{BE(SAT)} (V) Max	I _C @ (mA)	C _{ob} (pF) Typ Max	f _T (MHz) Min Typ Max	t(off) (ns) Max	CDIL Case Style			
2N6715	50	40	5	0.75	1.5		0.1	50	55 60 50	10 100 250	1 1 1	0.5		1000		50	400	50	TO-237-2		
2N6716	60	60	5	0.75	1.5		0.1	40	80 50 20	50 250 500	1 1 1	0.35		250		50	500	50	TO-237-2		
2N6717	80	80	5	0.75	1		0.1	60	80 50 20	50 250 500	1 1 1	0.35		250		50	500	200	TO-237-2		
2N6718	100	100	5	0.75	1		0.1	80	80 50 20	50 250 500	1 1 1	0.35		350		50	500	200	TO-237-2		
2N6719	300	300	7	0.75	0.5		0.1	200	25 40 40	1 10 200	10 10 10					30	300	15	TO-237-2		
2N6731	100	80	5	0.75	1		0.1	80	100 100	10 300	2 2	0.35		350		50	500	200	TO-237-2		
2N6733	200	200	6	0.75	0.5		0.1	160	25 40	1 200	10 10	2		20		50	200	10	TO-237-2		
2N6734	250	250	6	0.75	0.5		0.1	200	25 40	1 200	10 10	2				50	200	10	TO-237-2		
2N6735	300	300	6	0.75	0.5		0.1	260	25 40	1 200	10 10					50	200	10	TO-237-2		
CIL857	200	200	6	0.9	0.5		0.05	150	70 70 50	1 400 30	10 10 10	0.5	1	50	7	80		10	TO-237-1		
CIL857GR	200	200	6	0.9	0.5		0.05	150	70 200 50	1 400 30	10 10 10	0.5	1	50	7	80		10	TO-237-1		
CIL857O	200	200	6	0.9	0.5		0.05	150	70 70 50	1 140 30	10 10 10	0.5	1	50	7	80		10	TO-237-1		
CIL857Y	200	200	6	0.9	0.5		0.05	150	70 120 50	1 240 30	10 10 10	0.5	1	50	7	80		10	TO-237-1		
CIL858	250	250	6	0.9	0.5		0.05	200	70 70 50	1 400 30	10 10 10	0.5	1	50	7	80		10	TO-237-1		
CIL858GR	250	250	6	0.9	0.5		0.05	200	70 200 50	1 400 30	10 10 10	0.5	1	50	7	80		10	TO-237-1		
CIL858O	250	250	6	0.9	0.5		0.05	200	70 70 50	1 140 30	10 10 10	0.5	1	50	7	80		10	TO-237-1		
CIL858Y	250	250	6	0.9	0.5		0.05	200	70 120 50	1 240 30	10 10 10	0.5	1	50	7	80		10	TO-237-1		
CIL859	300	300	6	0.9	0.5		0.05	250	70 70 70	1 400 30	10 10 10	0.5	1	50	7	80		10	TO-237-1		

Maximum Ratings							Electrical Characteristics (Ta=25°C, Unless Otherwise Specified)														
Type No.	V _{CBO} (V) Min	V _{CEO} (V) Min	V _{EB0} (V) Min	P _D (W) @Tc=25°C	I _C (A)	I _{CM} (A)	I _{CBO} (μA) Max	V _{CB} (V)	h _{FE} @ Min Max	I _C & (mA)	V _{CE} (V)	V _{CE(SAT)} (V) & V _{BE(SAT)} (V) Max Min Max	I _C @ (mA)	C _{ob} (pF) Typ Max	f _t (MHz) Min Typ Max	I _C (mA)	t(off) (ns) Max	CDIL Case Style			
CIL859GR	300	300	6	0.9	0.5		0.05	250	70 200 50	1 400 30	10 10 10	0.5	1	50	7	80	10		TO-237-1		
CIL859O	300	300	6	0.9	0.5		0.05	250	70 70 50	140	10 10 30	10 10 10	0.5	1	50	7	80	10		TO-237-1	
CIL859Y	300	300	6	0.9	0.5		0.05	250	70 120 50	240	10 10 30	10 10 10	0.5	1	50	7	80	10		TO-237-1	
CIL2229	200	150	5	0.75	0.05		0.1	200	70	240	10	5	0.5	1	10	4	5	120	10	TO-237-1	
CIL2229O	200	150	5	0.75	0.05		0.1	200	70	140	10	5	0.5	1	10	4	5	120	10	TO-237-1	
CIL2229Y	200	150	5	0.75	0.05		0.1	200	120	240	10	5	0.5	1	10	4	5	120	10	TO-237-1	
CIL2230	200	160	5	0.75	0.1		0.1	200	120 80	400	10 50	10 10	0.5		50	7	50	10		TO-237-1	
CIL2230A	200	180	5	0.8	0.1		0.1	200	120 80	400	10 50	10 10	0.5		50	7	50	10		TO-237-1	
CIL2230AGR	200	180	5	0.8	0.1		0.1	200	200 80	400	10 50	10 10	0.5		50	7	50	10		TO-237-1	
CIL2230AY	200	180	5	0.8	0.1		0.1	200	120 80	240	10 50	10 10	0.5		50	7	50	10		TO-237-1	
CIL2230GR	200	160	5	0.75	0.1		0.1	200	200 80	400	10 50	10 10	0.5		50	7	50	10		TO-237-1	
CIL2230Y	200	160	5	0.75	0.1		0.1	200	120 80	240	10 50	10 10	0.5		50	7	50	10		TO-237-1	
CIL2328A	30	30	5	1	1.5		0.1	30	100	320	500	2	2		1500	30	120	500		TO-237-1	
CIL2328AO	30	30	5	1	1.5		0.1	30	100	200	500	2	2		1500	30	120	500		TO-237-1	
CIL2328AY	30	30	5	1	1.5		0.1	30	100	300	500	2	2		1500	30	120	500		TO-237-1	
CIL2331	80	60	8	1	0.7		0.1	60	40	240	50	2	0.7	1.2	500	8	30	50	50	TO-237-1	
CIL2331O	80	60	8	1	0.7		0.1	60	40	140	50	2	0.7	1.2	500	8	30	50	50	TO-237-1	
CIL2331Y	80	60	8	1	0.7		0.1	60	120	240	50	2	0.7	1.2	500	8	30	50	50	TO-237-1	
CIL2482	300	300	7	0.9	0.1		1	240	20 30	4 150	10 20	10 10	1	1	10	3	50	20		TO-237-1	
CIL2655	50	50	5	0.75	1.5	2	1	50	70 40	240	500 1500	2 2	0.5		1000	30	100	500		TO-237-1	
CIL2655O	50	50	5	0.75	1.5	2	1	50	70 40	140	500 1500	2 2	0.5		1000	30	100	500		TO-237-1	
CIL2655Y	50	50	5	0.75	1.5	2	1	50	120 40	240	500 1500	2 2	0.5		1000	30	100	500		TO-237-1	
CN100	60	50	5	0.75	1		0.05	40	40	300	150	10	0.6		150		80			TO-237	
CN100A	60	50	5	0.75	1		0.05	40	40	120	150	10	0.6		150		80			TO-237	
CN100B	60	50	5	0.75	1		0.05	40	100	300	150	10	0.6		150		80			TO-237	

TO-237 Plastic Package Transistors (NPN)

CDIL

Maximum Ratings							Electrical Characteristics (Ta=25°C, Unless Otherwise Specified)													
Type No.	V _{CEO} (V) Min	V _{CEO} (V) Min	V _{EB0} (V) Min	P _D (W) @Tc=25°C	I _C (A)	I _{CM} (A)	I _{CS0} (μA) Max	V _{CS} (V)	h _{FE} @		I _C & (mA)	V _{CE} (V)	V _{CE(SAT)} (V) & (V) Max Min	V _{BE(SAT)} (V) Max	I _C @ (mA)	C _{ob} (pF) Typ Max	f _T (MHz) Min Typ	I _C @ (mA) Max	t(off) (ns) Max	CDIL Case Style
CSC1573	250	250	5	1	0.07		2	12	30	220	5	10	1.2		50	10	50	10		TO-237-1
CSC1573A	300	300	7	1	0.07		2	12	30	220	5	10	1.2		50	8	50	10		TO-237-1
CSC1573AP	300	300	7	1	0.07		2	12	30	100	5	10	1.2		50	8	50	10		TO-237-1
CSC1573AQ	300	300	7	1	0.07		2	12	60	150	5	10	1.2		50	8	50	10		TO-237-1
CSC1573AR	300	300	7	1	0.07		2	12	100	220	5	10	1.2		50	8	50	10		TO-237-1
CSC1573P	250	250	5	1	0.07		2	12	30	100	5	10	1.2		50	10	50	10		TO-237-1
CSC1573Q	250	250	5	1	0.07		2	12	60	150	5	10	1.2		50	10	50	10		TO-237-1
CSC1573R	250	250	5	1	0.07		2	12	100	220	5	10	1.2		50	10	50	10		TO-237-1
CSC2330	300	300	6	0.9	0.1		0.1	200	40	240	20	10	0.5		10	4	50			TO-237-1
CSC23300	300	300	6	0.9	0.1		0.1	200	70	140	20	10	0.5		10	4	50			TO-237-1
CSC2330R	300	300	6	0.9	0.1		0.1	200	40	80	20	10	0.5		10	4	50			TO-237-1
CSC2330Y	300	300	6	0.9	0.1		0.1	200	120	240	20	10	0.5		10	4	50			TO-237-1
CSC2331	80	60	6	1	0.7		0.1	60	40	240	50	2	0.7	1.2	500	8	30	50	50	TO-237-1
CSC23310	80	60	6	1	0.7		0.1	60	70	140	50	2	0.7	1.2	500	8	30	50	50	TO-237-1
CSC2331R	80	60	6	1	0.7		0.1	60	40	80	50	2	0.7	1.2	500	8	30	50	50	TO-237-1
CSC2331Y	80	60	6	1	0.7		0.1	60	120	240	50	2	0.7	1.2	500	8	30	50	50	TO-237-1
CSC2383	160	160	6	0.9	1		1	150	60	320	200	5	1.5		500	20	20	200		TO-237-1
CSC23830	160	160	6	0.9	1		1	150	100	200	200	5	1.5		500	20	20	200		TO-237-1
CSC2383R	160	160	6	0.9	1		1	150	60	120	200	5	1.5		500	20	20	200		TO-237-1
CSC2383Y	160	160	6	0.9	1		1	150	160	320	200	5	1.5		500	20	20	200		TO-237-1
CSD468	25	20	5	0.9	1		1	20	85	240	500	2	0.5		800	22	190	500		TO-237-1
CSD468B	25	20	5	0.9	1		1	20	85	170	500	2	0.5		800	22	190	500		TO-237-1
CSD468C	25	20	5	0.9	1		1	20	120	240	500	2	0.5		800	22	190	500		TO-237-1
CTN368		20	5		1		10	25	50 85 60	375 500 1000	5 1 1	10	0.5		1000	27	60	10		TO-237
CTN391	200	200	6	0.75	0.5		0.1	160	25 40		1 10	10 10	2	2	20		5	50		TO-237
CTN392	250	250	6	0.75	0.5		0.1	200	25 40		1 10	10 10	2	2	20		5	50		TO-237
CTN393	300	300	6	0.75	0.5		0.1	200	25 40		1 10	10 10	2	2	20		5	50		TO-237
CTN635	45	45	5	0.75	1	1.5	10	30	25 40 25	250 150 500	2 2 2		0.5	1	1	7	130	1000		TO-237
CTN637	60	60	5	0.75	1	1.5	10	30	40	160	0.15	2	0.5	1	1	7	130	1000		TO-237

Maximum Ratings							Electrical Characteristics (Ta=25°C, Unless Otherwise Specified)															
Type No.	V _{CBO} (V)	V _{CEO} (V)	V _{EBO} (V)	P _D (W)	I _C (A)	I _{CM} (A)	I _{CBO} (μA)	V _{CB} (V)	h _{FE} @		I _C & (mA)	V _{CE} (V)	V _{CE(SAT)} (V) & (V)		I _C @ (mA)	C _{ob} (pF)		f _t (MHz)	@ Type	I _C (mA)	t(off) (ns)	CDIL Case Style
	Min	Min	Min	@Tc=25°C	Max	Min			Max	Max			Min	Max		Typ	Max					
CTN639	100	80	5	0.75	1	1.5	10	30	25		5	2	0.5	1	1	7		130				TO-237
									40	160	150	2										
									25		500	2										
*MPSW13	30	30	10	1	1		0.1	30	5		10	5	1.5		100			125				TO-237-2
									10		100	5										
TN368		20	5				10	25	50		5	10	0.5		1000	27		60				TO-237-2
									85	375	500	1										
									60		1000	1										
TN391	200	200	6	0.75	0.5		0.1	160	25		1	10	2		2	20	2	50				TO-237
									40		10	10										
TN392	250	250	8	0.75	0.5		0.1	200	25		1	10	2		2	20	2	50				TO-237
									40		10	10										
TN393	300	300	8	0.75	0.5		0.1	200	25		1	10	2		2	20	2	50				TO-237
									40		10	10										
TN635	45	45	5	0.75	1		0.1	30	40	250	150	2	0.5		500			130				TO-237-2
									25		500	2										
TN637	60	60	5	0.75	1		0.1	30	40	160	150	2	0.5		500			130				TO-237-2
									25		500	2										
TN639	100	80	5	1.75	1		0.1	30	40	160	150	2	0.5		500			130				TO-237-2
									25		500	2										
TN2017	60	60	8	0.75	0.5		10	30	35		10	10										TO-237-2
									50	200	200	10										
									20		1000	10										
TN2102	120	65	7	0.75	0.5		0.01	60	10	120	0.01	10	0.5		1.1	150	15	60				TO-237-2
									20		0.1	10										
									35		10	10										
									40	120	150	10										
									25		500	10										
									10		1000	10										
TN2218A	75	40	6	0.75	0.6		0.01	60	25		500	10	0.3	0.6	1.2	150	8	250				TO-237-2
									20		150	1	1		2	500						
									40	120	150	10										
									35		10	10										
									25		1	10										
									20		0.1	10										
TN2219	60	30	5	0.75	0.6		0.01	50	30		500	10	0.4		1.3	150	8	250				TO-237-2
									50		150	1	1.6		2.6	500						
									100	300	150	10										
									75		10	10										
									50		1	10										
									35	300	0.1	10										
TN2219A	75	40	6	0.75	0.6		0.01	60	40		500	10	0.3	0.6	1.2	150	8	300				TO-237-2
									50		150	1	1		2	500						
									100	300	150	10										
									75		10	10										
									50		1	10										
									35	300	0.1	10										
TN2270	60	45	7	0.75	0.5		0.05	60	30		1	10	0.9		1.2	150	15	100				TO-237-2
									50	200	150	10										
TN3019	140	80	7	0.75	0.5		0.01	90	50		1	10	0.2		1.1	150	12	100				TO-237-2
									90		10	10	0.5			500						
									100	300	150	10										
									50		500	10										
									15		1000	10										

* hFE value are K.

TO-237 Plastic Package Transistors (NPN)

CDIL

Maximum Ratings							Electrical Characteristics (Ta=25°C, Unless Otherwise Specified)																
Type No.	V _{CBO} (V) Min	V _{CEO} (V) Min	V _{EBO} (V) Min	P _D (W) @Tc=25°C	I _C (A)	I _{CM} (A)	I _{CBO} (μA) Max	V _{CB} (V)	h _{FE} @		I _C & (mA)	V _{CE} (V)	V _{CE(SAT)} (V) & (V) Max Min		V _{BE(SAT)} (V) Max	I _C @ (mA)	C _{ob} (pF) Typ Max		f _t @ I _C (MHz) Min Typ Max			t _{off} (ns) Max	CDIL Case Style
TN3020	140	80	7	0.75	0.5		0.01	90	30	100	1	10	0.2	1.1	150		12	80		50		TO-237-2	
									40	120	10	10	0.5		500								
									40	120	150	10											
									30	100	500	10											
									15		1000	10											
TN3053	60	40	5	0.75	0.5		0.25	30	25		150	2.5	1.4	1.7	150		15	100		50		TO-237-2	
									50	250	150	10											
TN3742	300	300	7	0.75	0.5		0.2	200	10		3	10	0.75	1	10		3	30		10		TO-237-2	
									15		10	10	1	1.2	30								
									20	200	30	10											
									20		50	20											

CDIL TO-237 PLASTIC PACKAGE TRANSISTORS (PNP)

Maximum Ratings							Electrical Characteristics (Ta=25°C, Unless Otherwise Specified)														
Type No.	V _{CBO} (V) Min	V _{CEO} (V) Min	V _{EB0} (V) Min	P _D (W) @Tc=25°C	I _C (A)	I _{CM} (A)	I _{CBO} (μA) Max	V _{CB} (V)	h _{FE} Min	@ Max	I _C & (mA)	V _{CE} (V)	V _{CE(SAT)} (V) & (V) Max Min	V _{BE(SAT)} (V) Max	I _C @ (mA)	C _{ob} (pF) Typ Max	f _t (MHz) Min	@ Typ	I _C (mA) Max	t(off) (ns) Max	CDIL Case Style
2N6708	60	45	5	0.75	1.5		0.1	60	40		50	2	1		1000		50		50		TO-237-1
									40	250	250	2	0.5		500						
									25		500	2									
2N6709	80	60	5	0.75	1.5		0.1	80	40		50	2	1		1000		50		50		TO-237-1
									40	250	250	2	0.5		500						
									25		500	2									
2N6710	100	80	5	0.75	1.5		0.1	100	40		50	2	1		1000		50		50		TO-237-1
									40	250	250	2	0.5		500						
									25		500	2									
2N6726	40	30	5	0.75	2		0.1	40	55		10	1	0.5		1000		50		50		TO-237-2
									60		100	1									
									50	200	1000	1									
2N6727	50	40	5	0.75	1		0.1	50	55		10	1	0.5		1000		50	500	50		TO-237-2
									60		100	1									
									50	250	1000	1									
2N6728	60	60	5	0.75	1		0.1	40	80		50	1	0.35		250		50		50		TO-237-2
									50	250	250	1									
									20		500	1									
2N6729	80	80	5	0.75	1		0.1	60	80		50	1	0.35		250		50		50		TO-237-2
									50	250	250	1									
									20		500	1									
2N6730	100	100	5	0.75	1		0.1	80	80		50	1	0.35		250		50		50		TO-237-2
									50	250	250	1									
									20		500	1									
2N6732	100	80	5	0.75	1		0.1	80	100		10	2	0.35		350		50		50		TO-237-2
									100	300	350	2									
CIL916	160	160	5	0.75	0.05		0.1	160	50		1	10	0.6	1	20	3	3.5	50	80	10	TO-237-1
									90	400	10	10									
CIL916KA	160	160	5	0.75	0.05		0.1	160	50		1	10	0.6	1	20	3	0.5	50	80	10	TO-237-1
									200	400	10	10									
CIL916LA	160	160	5	0.75	0.05		0.1	160	50		1	10	0.6	1	20	3	3.5	50	80	10	TO-237-1
									135	270	10	10									
CIL916MA	160	160	5	0.75	0.05		0.1	160	50		1	10	0.6	1	20	3	3.5	50	80	10	TO-237-1
									90	180	10	10									
CIL928A	30	30	5	1	1.5		0.1	30	100	320	500	2	2		1500	3	30		120		TO-237-1
CIL928AO	30	30	5	1	1.5		0.1	30	100	200	500	2	2		1500	3	30		120		TO-237-1
CIL928AY	30	30	5	1	1.5		0.1	30	100	300	500	2	2		1500	3	30		120		TO-237-1
CIL1020	50	50	5	0.75	1.5	2	1	50	70	240	500	2	0.5		1000	40		100	500		TO-237-1
									40		1500	2									
CIL1020O	50	50	5	0.75	1.5	2	1	50	70	140	500	2	0.5		1000	40		100	500		TO-237-1
									40		1500	2									
CIL1020Y	50	50	5	0.75	1.5	2	1	50	120	240	500	2	0.5		1000	40		100	500		TO-237-1
									40		1500	2									
CP100	60	50	5	0.75	1		0.05	40	40	300	150	10	0.6		150			80			TO-237
CP100A	60	50	5	0.75	1		0.05	40	40	120	150	10	0.6		150			80			TO-237
CP100B	60	50	5	0.75	1		0.05	40	100	300	150	10	0.6		150			80			TO-237
CSA931	80	60	6	1	0.7		0.1	60	40	240	50	2	0.7	1.2	500		50	100	50		TO-237-1
CSA931O	80	60	6	1	0.7		0.1	60	70	140	50	2	0.7	1.2	500		50	100	50		TO-237-1
CSA931R	80	60	6	1	0.7		0.1	60	40	80	50	2	0.7	1.2	500		50	100	50		TO-237-1
CSA931Y	80	60	6	1	0.7		0.1	60	120	240	50	2	0.7	1.2	500		50	100	50		TO-237-1

TO-237 PLASTIC PACKAGE TRANSISTORS (PNP)

CDIL

Maximum Ratings							Electrical Characteristics (Ta=25°C, Unless Otherwise Specified)															
Type No.	V _{CBO} (V) Min	V _{CEO} (V) Min	V _{EB0} (V) Min	P _D (W) @Tc=25°C	I _C (A)	I _{CM} (A)	I _{CBO} (μA) Max	V _{CB} (V)	h _{FE} @		I _C & (mA)	V _{CE} (V)	V _{CE(SAT)} (V) & (V) Max Min	V _{BE(SAT)} (V) Max	I _C @ (mA)	C _{ob}	pF (pF) Typ Max	f _T (MHz) Min Typ Max	t _{off} (ns) Max	CDIL (ns) Max	Case Style	
CSA1013	160	160	6	0.9	1		1	150	60	320	200	5	1.5		500		35	15	50	200		TO-237-1
CSA10130	160	160	6	0.9	1		1	150	100	200	200	5	1.5		500		35	15	50	200		TO-237-1
CSA1013R	160	160	6	0.9	1		1	150	60	120	200	5	1.5		500		35	15	50	200		TO-237-1
CSA1013Y	160	160	6	0.9	1		1	150	160	320	200	5	1.5		500		35	15	50	200		TO-237-1
CTN369		20	5	0.75	0.5		10	25	50		5	10	0.5		1000	45		60	10		TO-237	
									85	375	500	1										
									60		1000	1										
CTN491	200	200	6	0.75	0.5		0.1	160	25		1	10	2		2	20		50	10		TO-237	
									40		10	10										
CTN492	250	250	6	0.75	0.5		0.1	200	25		1	10	2		2	20		50	10		TO-237	
									40		10	10										
CTN493	300	300	6	0.75	0.5		0.1	200	25		1	10	2		2	20		50	10		TO-237	
									40		10	10										
CTN636	45	45	5	1	1	1.5	10	30	25		5	2	0.5	1		1	9		130	1000		TO-237
									40	250	150	2										
									25		500	2										
CTN640	100	80	5	1	1	1.5	10	30	25		5	2	0.5	1		1	9		130	10		TO-237
									40	160	150	2										
									25		500	2										
TN369		20	5	2.5			10	25	50		5	10	0.5		1000	45		60	10		TO-237-2	
									85	375	500	1										
									60		1000	1										
TN636	45	45	5	0.75	1		0.1	30	40	250	150	2	0.5		500			130			TO-237-2	
									25		500	2										
TN638	60	60	5	0.75	1		0.1	30	40	160	150	2	0.5		500			130			TO-237-2	
									25		500	2										
TN640	100	80	5	0.75	1		0.1	30	50	160	150	2	0.5		500			130			TO-237-2	
									25		500	2										
TN2904A	60	60	5	0.75	0.6		0.01	50	40		0.1	10	0.4		1.3	150	8	200	50	175	TO-237-2	
									40		1	10	1.6		2.6	500						
									40		10	10										
									40	120	150	10										
									40		500	10										
TN2905	60	40	5	0.75	0.6		0.02	50	30		500	10	0.4		1.3	150	8	200	50	200	TO-237-2	
									100	300	150	10	1.6		2.6	500						
									75		10	10										
									50		1	10										
									35		0.1	10										
TN2905A	60	60	5	0.75	0.6	0.6	0.01	50	50		500	10	0.4		1.3	150	8	200	50	200	TO-237-2	
									100	300	150	10	1.6		2.6	500						
									100		10	10										
									100		1	10										
									75		0.1	10										
TN4030	60	60	5	0.75	0.5		0.05	50	30		0.1	5	0.5		500	20	100	400	50		TO-237-2	
									40	120	100	5	0.15		0.9	150						
									25		500	5	1		1000							
									15		1000	5										
TN4033	80	80	5	0.75	0.5		0.05	60	75		0.1	5	0.15		0.9	150	20	150	500	50	TO-237-2	
									100	300	100	5	0.5		500							
									70		500	5										
									25		1000	5										
TN4036	90	65	7	0.75	0.5		0.02	60	20		0.1	10	0.65		1.4	150	30	60	50		TO-237-2	
									40	140	150	10										
									20		500	10										

CDIL

TO-237 PLASTIC PACKAGE TRANSISTORS (PNP)

Maximum Ratings						Electrical Characteristics (Ta=25°C, Unless Otherwise Specified)														
Type No.	V _{CBO} (V) Min	V _{CEO} (V) Min	V _{EB0} (V) Min	P _D (W) @Tc=25°C	I _C (A)	I _{CM} (A)	I _{CBO} (μA) Max	V _{CB} (V)	h _{FE} @ Min Max	I _C & (mA)	V _{CE} (V)	V _{CE(SAT)} (V) & (V) Max Min	V _{BE(SAT)} /I _C @ (mA) Max	C _{ob} (pF) Typ Max	f _T (MHz) Min Typ Max	t(off) (mA) Max	CDIL (ns) Max	Case Style		
TN4037	60	40	7	0.75	0.5		0.25	60	15 50	1 250	10	1.4	150	30	60	200	50		TO-237-2	
TN4234	40	40	7	0.75	1		100	40	40 30 20 10	100 150 500 1000	1	0.6	1.5	1000	100	3	100		TO-237-2	
TN4235	60	60	7	0.75	1		100	60	40 30 20 10	100 150 500 1000	1	0.6	1.5	1000	100	3	100		TO-237-2	
TN4236	80	80	7	0.75	1		100	80	40 30 20 10	100 150 500 1000	1	0.6	1.5	1000	100	3	100		TO-237-2	
TN4314	90	65		0.75	0.5		0.25	60	15 50	1 250	10	1.4	150		60		50		TO-237-2	