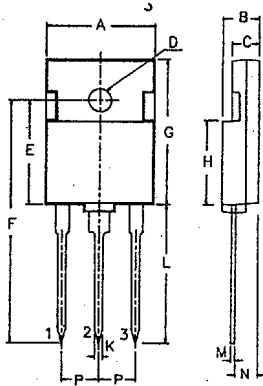
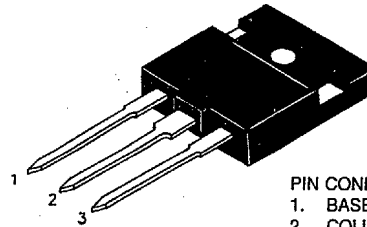


# TO-3P Fully Isolated Plastic Package Transistors CDIL



DIM	MIN.	MAX.
A	17.75	18.25
B	5.2	5.7
C	3.8	4.2
D	∅ 1.9	∅ 2.1
E	14.50	15.10
F	33.25	36.75
G	20.75	21.25
H	11.50	12.25
K	1.0	1.30
L	18.75	21.65
M	0.40	0.60
N	3.15	3.45
P	5.21	5.72

ALL DIMENSIONS ARE IN M.M.



**PIN CONFIGURATION**  
 1. BASE  
 2. COLLECTOR  
 3. EMITTER

TO BE MOUNTED WITH SILICONE GREASE ON THE BACK SIDE, ENSURING BACK SIDE HOLES FILLED.

Type No.	Polarity	Maximum Ratings						Electrical Characteristics (Ta = 25°C, Unless Otherwise Specified)										
		V <sub>CBO</sub> (V) Min	V <sub>CEO</sub> (V) Min	V <sub>EBO</sub> (V) Min	P <sub>D</sub> (W) @Tc=25°C	I <sub>C</sub> (A)	I <sub>CM</sub> (A)	I <sub>CES</sub> (μA) Max	V <sub>CE</sub> (V)	h <sub>FE</sub> Min	h <sub>FE</sub> Max	I <sub>C</sub> (A) & V <sub>CE</sub> (V)	V <sub>CESAT</sub> (V) Max	I <sub>C</sub> (A)	C <sub>ob</sub> (pF) Typ	f <sub>t</sub> (MHz) Typ	I <sub>C</sub> (A)	
BU426AF	NPN	900†	400	10	70	6	8	1000	900	60		0.6	5	3	4		10	0.2
BU426F	NPN	800†	375	10	70	6	8	1000	800		60	0.6	5	3	4		10	0.2
BU908F	NPN	1500†	700	5	34	8	15	500	1500					2	3.2	125	7	0.1
CSB817F	PNP	160	140	6	90	12		100\$	80	60	200	1.0	5	2.5	5	300	15	1
										20		6	5					
CSB817OF	PNP	160	140	6	90	12		100\$	80	60	120	1	5	2.5	5	300	15	1
										20		6	5					
CSB817YF	PNP	160	140	6	90	12		100\$	80	100	200	1	5	2.5	5	300	15	1
										20		6	5					
CSA1301F	PNP	160	160	5	90	12		5\$	160	55	200	1.0	5	2.8	8	480	30	1
										28		6	5					
CSA1301OF	PNP	160	160	5	90	12		5\$	160	80	200	1	5	2.8	8	480	30	1
										28		6	5					
CSA1301RF	PNP	160	160	5	90	12		5\$	160	55	110	1	5	2.8	8	480	30	1
										28		6	5					
CSA1302F ∅	PNP	200	200	5	90	15		5\$	200	55	200	1.0	5	3.2	10	470	25	1
										25		8	5					
CSA1302OF ∅	PNP	200	200	5	90	15		5\$	200	80	200	1	5	3.2	10	470	25	1
										25		8	5					
CSA1302RF ∅	PNP	200	200	5	90	15		5\$	200	55	110	1	5	3.2	10	470	25	1
										25		8	5					
CSC3280F	NPN	160	160	5	90	12		5\$	160	55	200	1.0	5	2	8	220	30	1
										28		6	5					
CSC3280OF	NPN	160	160	5	90	12		5\$	160	80	200	1	5	2	8	220	30	1
										28		6	5					
CSC3280RF	NPN	160	160	5	90	12		5\$	160	55	110	1	5	2	8	220	30	1
										28		6	5					
CSC3281F ∅	NPN	200	200	5	90	15		5\$	200	55	200	1.0	5	3	10	270	30	1
										25		8	5					

\* Flash over current, non-repetitive Max 5 A †=V<sub>CEs</sub> \$=I<sub>CBO</sub> ∅ under development

# CDIL TO-3P Fully Isolated Plastic Package Transistors

Maximum Ratings								Electrical Characteristics (Ta = 25°C, Unless Otherwise Specified)										
Type No.	Polarity	V <sub>CEO</sub> (V) Min	V <sub>CE0</sub> (V) Min	V <sub>EB0</sub> (V) Min	P <sub>D</sub> (W) @Tc=25°C	I <sub>C</sub> (A)	I <sub>CM</sub> (A)	I <sub>CES</sub> (μA) Max	V <sub>CE</sub> (V)	h <sub>FE</sub> Min	h <sub>FE</sub> Max	I <sub>C</sub> (A)	V <sub>CE</sub> (V)	V <sub>CE(SAT)</sub> (V) Max	I <sub>C</sub> (A)	C <sub>ob</sub> (pF) Typ	f <sub>t</sub> (MHz) Typ	I <sub>C</sub> (A)
CSC32810F <sup>Ⓞ</sup>	NPN	200	200	5	90	15		5 <sup>\$</sup>	200	80 25	160	1 8	5 5	3	10	270	30	1
CSC3281RF <sup>Ⓞ</sup>	NPN	200	200	5	90	15		5 <sup>\$</sup>	200	55 25	110	1 8	5 5	3	10	270	30	1
CSD1047F	NPN	160	140	6	90	12		100 <sup>\$</sup>	80	60 20	200	1 6	5 5	2.5	5	210	15	1.0
CSD10470F	NPN	160	140	6	90	12		100 <sup>\$</sup>	80	60 20	120	1 6	5 5	2.5	5	210	15	1
CSD1047YF	NPN	160	140	6	90	12		100 <sup>\$</sup>	80	100 20	200	1 6	5 5	2.5	5	210	15	1
CSD1426F	NPN	1500	600	5	34	3.5		10 <sup>\$</sup>	500	8		0.5	5	8	3	95	3	0.1
TIP33AF	NPN	60	60	5	80	10	15	400	60	20 40	100	3 1	4 4	1 4	3 10		3 <sup>+</sup>	0.5
TIP33BF	NPN	80	80	5	80	10	15	400	80	20 40	100	3 1	4 4	1 4	3 10		3 <sup>+</sup>	0.5
TIP33CF	NPN	100	100	5	80	10	15	400	100	20 40	100	3 1	4 4	1 4	3 10		3 <sup>+</sup>	0.5
TIP33F	NPN	40	40	5	80	10	15	400	40	20 40	100	3 1	4 4	1 4	3 10		3 <sup>+</sup>	0.5
TIP34AF	PNP	60	60	5	80	10	15	400	60	20 40	100	3 1	4 4	1 4	3 10		3 <sup>+</sup>	0.5
TIP34BF	PNP	80	80	5	80	10	15	400	80	20 40	100	3 1	4 4	1 4	3 10		3 <sup>+</sup>	0.5
TIP34CF	PNP	100	100	5	80	10	15	400	100	20 40	100	3 1	4 4	1 4	3 10		3 <sup>+</sup>	0.5
TIP34F	PNP	40	40	5	80	10	15	400	40	20 40	100	3 1	4 4	1 4	3 10		3 <sup>+</sup>	0.5
TIP140F	NPN	60	60	5	60	10	20	1000 <sup>\$</sup>	60	1000 500		5 10	4 4	2 3	5 10			
TIP141F	NPN	80	80	5	60	10	20	1000 <sup>\$</sup>	80	1000 500		5 10	4 4	2 3	5 10			
TIP142F	NPN	100	100	5	60	10	20	1000 <sup>\$</sup>	100	1000 500		5 10	4 4	2 3	5 10			
TIP145F	PNP	60	60	5	60	10	20	1000 <sup>\$</sup>	60	1000 500		5 10	4 4	2 3	5 10			
TIP146F	PNP	80	80	5	60	10	20	1000 <sup>\$</sup>	80	1000 500		5 10	4 4	2 3	5 10			
TIP147F	PNP	100	100	5	60	10	20	1000 <sup>\$</sup>	100	1000 500		5 10	4 4	2 3	5 10			
TIP2955F	PNP	100	60	7	90	15		1000 <sup>‡</sup>	70	20 5	70	4 10	4 4	1.1 3	4 10		2.5	0.5
TIP2955HVF	PNP	120	100	7	60	15		5000 <sup>**</sup>	100	20 5	100	4 10	4 4	1.1 3	4 10		2.5	0.5
TIP3055F	NPN	100	60	7	90	15		1000 <sup>‡</sup>	70	20 5	150	4 10	4 4	3 3	10 10		2.5	0.5
TIP3055HVF	NPN	120	120	7	60	15		5000 <sup>**</sup>	100	20 5	100	4 10	4 4	1.1 3	4 10		2.5	0.5

\* Flash over current, non-repetitive Max 5 A    †=f<sub>t</sub> Min    \$=I<sub>CBO</sub>    ‡=I<sub>CER</sub>    \*\*=I<sub>CEV</sub>    Ⓞ under development