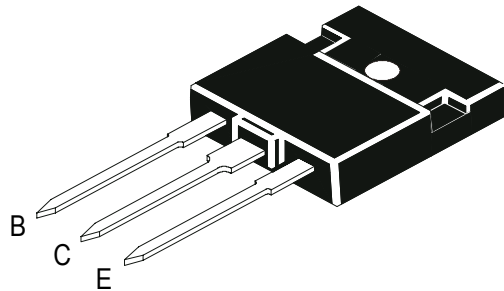


## NPN POWER TRANSISTOR

**CSD1047F**



**TO 3P  
Plastic Package**

**Complementary CSB817F**

## Audio Power Amplifier And DC to DC Converter

### ABSOLUTE MAXIMUM RATINGS (Ta=25°C unless specified otherwise )

DESCRIPTION	SYMBOL	VALUE	MIN	TYP	MAX	UNIT
Collector -Base Voltage(open emitter)	$V_{CBO}$		160			V
Collector -Emitter Voltage(open base)	$V_{CEO}$		160			V
Emitter Base Voltage(open collector)	$V_{EBO}$		6.0			V
Collector Current	$I_C$				12	A
Collector Current (Pulse)	$I_C$				15	A
Total Power Dissipation upto Tc=25° C	$P_{tot}$				90	W
Junction Temperature	$T_j$				150	°C
Storage Temperature	$T_{stg}$		-55 to +150			°C

### ELECTRICAL CHARACTERISTICS (Ta=25°C unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector Cut off Current	$I_{CBO}$	$V_{CB}=80V, I_E=0$			0.1	mA
Emitter Cut off Current	$I_{EBO}$	$V_{EB}=4V, I_C=0$			0.1	mA
Breakdown Voltages						
	$V_{CEO}$	$I_C=10mA, I_B=0$	140			V
	$V_{CBO}$	$I_C=5mA, I_E=0$	160			V
	$V_{EBO}$	$I_E=5mA, I_C=0$	6.0			V
Saturation Voltage	$V_{CE(sat)}$	$I_C=5A, I_B=0.5A$			2.5	V
Base Emitter on Voltage	$V_{BE(on)}$	$I_C=1A, V_{CE}=5V$			1.5	V
DC Current Gain	$h_{FE}$	$I_C=1A, V_{CE}=5V^{**}$	60		200	
		$I_C=6A, V_{CE}=5V$	20			
Transition frequency	$f_T$	$I_C=1A, V_{CE}=5V$		15		MHz
Output Capacitance	$C_o$	$V_{CB}=10V, I_E=0, f=1MHz$		210		pF

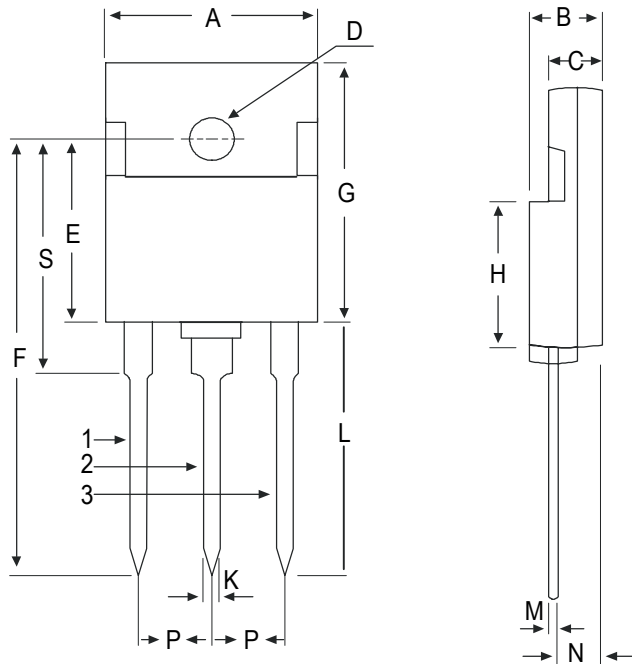
\* Pulse Tests : Pulse Width = 20μs

\*\*  $h_{FE}$  Classification :

**O : 60-120**

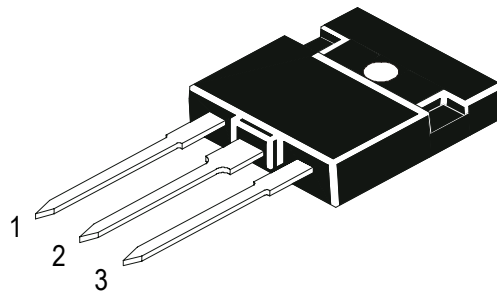
**Y: 100-200**

## TO-3P (TO-218) Plastic Package



DIM	MIN	MAX
A	15.80	16.40
B	5.20	5.70
C	3.80	4.20
D	Ø 3.30	Ø 3.60
E	14.50	15.10
F	33.25	36.75
G	20.75	21.25
H	11.50	12.25
K	1.00	1.30
L	18.75	21.65
M	0.40	0.60
N	3.15	3.45
P	5.21	5.72
S	18.75	19.25

All dimensions in mm.



## Pin Configuration

1. Base
2. Collector
3. Emitter

## Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-3P	100 pcs/polybag	628 gm/100 pcs	3" x 7.5" x 7.5"	0.3K	17" x 15" x 13.5"	4.8K	42 kgs

### Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Discrete Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD is believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Discrete Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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