

## POWER TRANSISTORS

**A1941** (9TW) PNP  
**C5198** (9TW) NPN

**TO- 3PN Non Isolated  
Plastic Package**



### Power Amplifier Applications.

#### ABSOLUTE MAXIMUM RATINGS ( $T_a=25^\circ\text{C}$ unless specified otherwise )

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector Base Voltage	$V_{CBO}$	160	V
Collector Emitter Voltage	$V_{CEO}$	160	V
Emitter Base Voltage	$V_{EBO}$	5.0	V
Collector Current	$I_C$	10	A
Base Current	$I_B$	1	A
Total Power Dissipation up to $T_c=25^\circ\text{C}$	$P_{tot}$	100	W
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	- 55 to +150	$^\circ\text{C}$

#### ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector Cut Off Current	$I_{CBO}$	$V_{CB}=160\text{V}, I_E=0$			5.0	$\mu\text{A}$
Emitter Cut Off Current	$I_{EBO}$	$V_{EB}=5\text{V}, I_C=0$			5.0	$\mu\text{A}$
Collector Emitter Voltage	$V_{CEO}$	$I_C=1\text{mA}, I_B=0$	160			V
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=7\text{A}, I_B=0.7\text{A}$			2.0	V
Base Emitter On Voltage	$V_{BE(on)}$	$I_C=5\text{A}, V_{CE}=5\text{V}$			1.5	V
DC Current Gain	$h_{FE}$	$*I_C=1\text{A}, V_{CE}=5\text{V}$ $I_C=5\text{A}, V_{CE}=5\text{V}$	55 35		200	
Collector Output Capacitance	$C_{ob}$	$I_E=0, V_{CB}=10\text{V}, f=1\text{MHz}$ <b>A1941</b> <b>C5198</b>		480 220		pF
Transition Frequency	$f_T$	$I_C=1\text{A}, V_{CE}=5\text{V}$		30		MHz

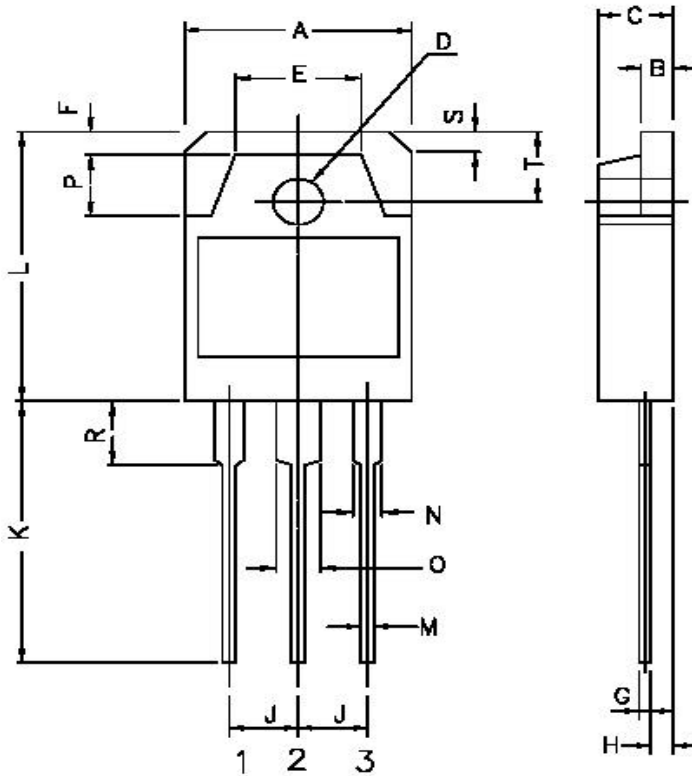
* $h_{FE}$ Classification	R : 55 - 110		O : 80 - 200	
Marking	CDIL A1941 R	CDIL C5198 R	CDIL A1941 O	CDIL C5198 O

A1941\_C5198\_9TWRRev\_2 250706E

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PACKAGE TO-3PN

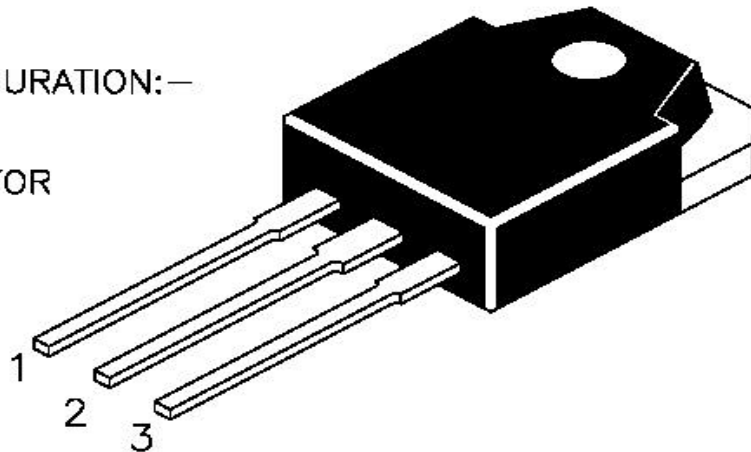


DIM	MIN	MAX
A	15.2	16.0
B	1.9	2.1
C	4.6	5.0
D	3.1	3.3
E	—	9.6
F	—	2.0
G	0.55	0.85
H	—	1.4
J	5.35	5.55
K	20.0	—
L	19.6	20.2
M	0.95	1.25
N	—	2.0
O	—	3.0
P	—	4.0
R	—	4.0
S	—	1.8
T	4.8	5.2

ALL DIMENSIONS ARE IN M.M.

PIN CONFIGURATION:—

1. BASE
2. COLLECTOR
3. EMITTER



**Component Disposal Instructions**

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

**Disclaimer**

The product information and the selection guides facilitate selection of the CDIL's 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 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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