



Continental Device India Limited

An ISO/TS 16949, ISO 9001 and ISO 14001 Certified Company



CD5N60/CD5N60F

TO-220/TO220F

VDMOS Power Transistor

Absolute maximum ratings ($T_{amb}=25^{\circ}\text{C}$)

Parameter		Symbol	Rating value	Unit
drain current (continuous)		I _D	5.0	A
drain source voltage		V _{GS}	±30	V
drain current (pulsed)		I _{DM}	20	A
thermal resistance junction case)		R _{θJC}	1.04	°C/W
dissipated power	Ta=25°C	P _{tot}	3.13	W
	Tc=25°C	P _{tot}	120	W
junction temperature		T _j	-55 to 150	°C
storage temperature		T _{stg}	-55 to 150	°C

Electrical characteristics ($T_{amb}=25^{\circ}\text{C}$)

Parameter	Symbol	Test conditions	Value			Unit
			MIN	NOR	MAX	
D-S voltage	V_{DS}	$V_{GS}=0V, I_D=250\mu A$	600			V
D-S on resistance	R_{ON}	$V_{GS}=10V, I_D=2.5A$		1.57	2.0	Ω
gate threshold voltage	V_{th}	$V_{DS}=V_{GS}, I_D=250\mu A$	2		4	V
S-D leakage current	I_{DSS}	$V_{DS}=600V, V_{GS}=0V$			10	μA
G-S leakage current	I_{GSS}	$V_{GS}=\pm 30V$			± 100	nA
transconductance	gm	$V_{DS}=50V, I_D=2.5A$		4.0		S
input capacitance	C_{IN}	$V_{GS}=0V, V_{DS}=25V, f=1.0\text{MHz}$		560	730	pF

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 are 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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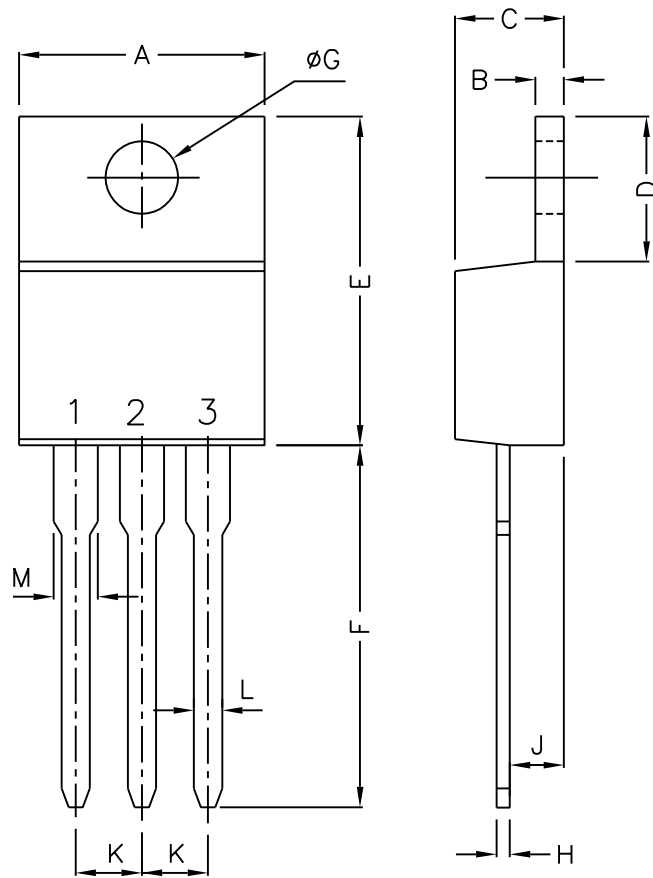
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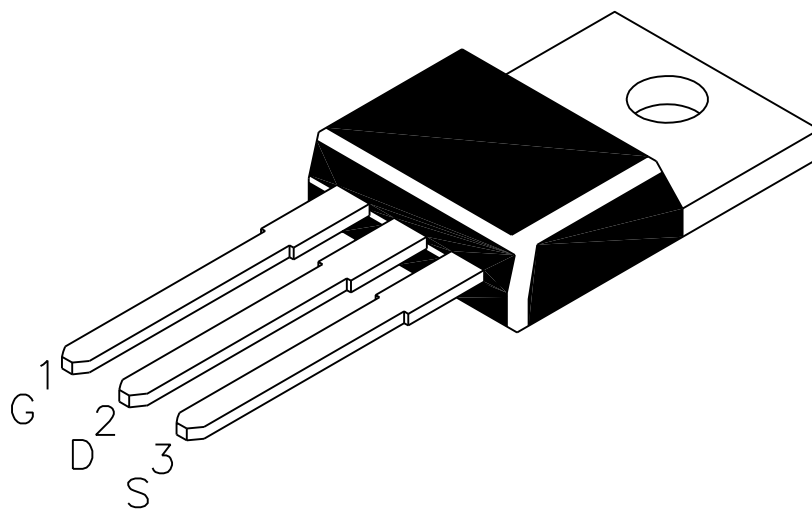
CD5N60_F Rev_2 280110E

PACKAGE TO-220



DIM	MIN	TYP.	MAX
A			10.7
B			1.4
C			4.8
D			6.9
E			16.5
F	12.5		
G		3.81	
H			0.4
J		2.67	
K		2.51	
L			1.2
M		1.27	

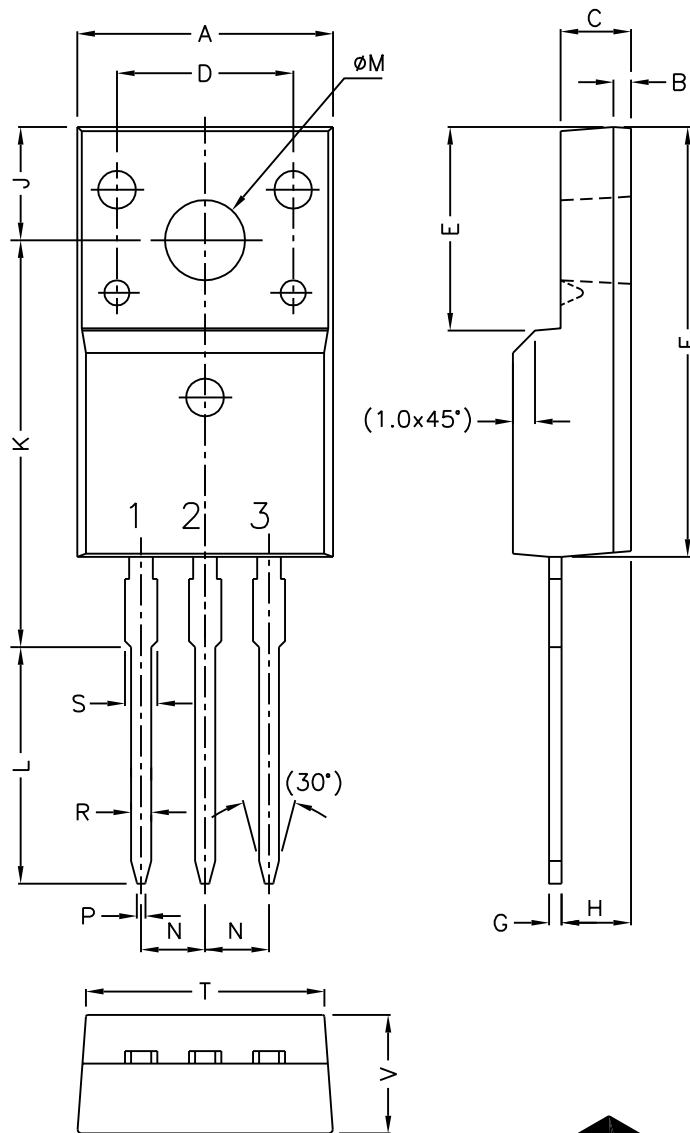
ALL DIMENSIONS ARE IN mm



PIN CONFIGURATION

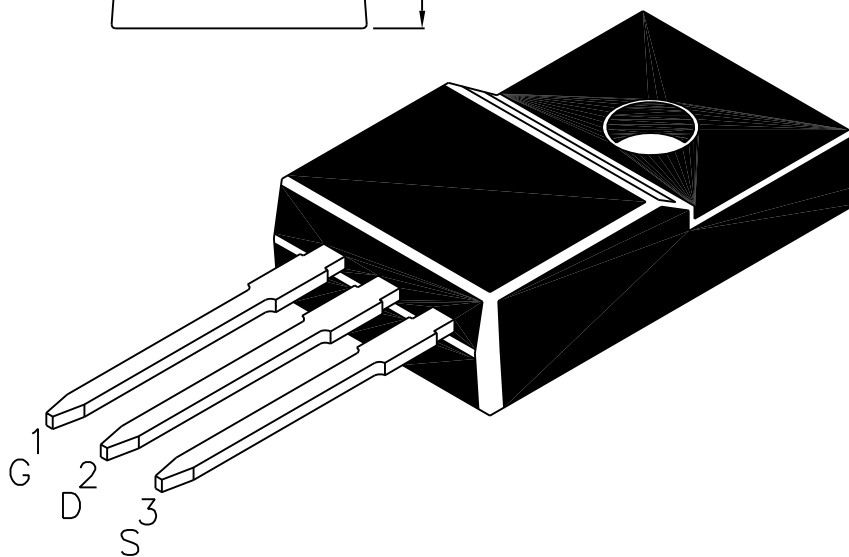
1. GATE
2. DRAIN
3. SOURCE

PACKAGE TO-220F



DIM	MIN	TYP.	MAX
A	9.96		10.36
B		0.70	
C	2.34		2.74
D		7.00	
E	6.48		6.88
F	15.67		16.07
G	0.40		0.55
H	2.16		2.56
J	3.20		3.40
K	15.60		16.00
L	9.45		10.05
M	3.08		3.28
N	2.34	2.54	2.74
P	0.25		0.45
R	0.70		0.90
S			1.47
T	9.20		9.60
V	4.50		4.90

ALL DIMENSIONS ARE IN mm



PIN CONFIGURATION

1. GATE
2. DRAIN
3. SOURCE