CMPDM7002AHC

SURFACE MOUNT
N-CHANNEL
ENHANCEMENT-MODE
SILICON MOSFET



SOT-23 CASE

• Device is ***Halogen Free*** by design

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DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPDM7002AHC is a High Current version of the 2N7002A Enhancement-mode N-Channel MOSFET, designed for high speed pulsed amplifier and driver applications.

MARKING CODE: 702H

APPLICATIONS:

- Load/Power Switches
- Power Supply Converter Circuits
- Battery Powered Portable Equipment

FEATURES:

- ESD Protection up to 2kV
- 350mW Power Dissipation
- Low $r_{DS(ON)}$: 0.22Ω MAX @ V_{GS}=10V
- Industry Standard SOT-23 Surface Mount Package

MAXIMUM RATINGS: (T_A=25°C)	**SYMBOL**		**UNITS**
Drain-Source Voltage	V_{DS}	60	V
Drain-Gate Voltage	V_{DG}	60	V
Gate-Source Voltage	V_{GS}	20	V
Continuous Drain Current (Steady State)	I_D	1.0	A
Maximum Pulsed Drain Current (tp=10μs)	I_{DM}	5.0	A
Power Dissipation	P_D	350	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	°C
Thermal Resistance	Θ_{JA}	357	°C/W

ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

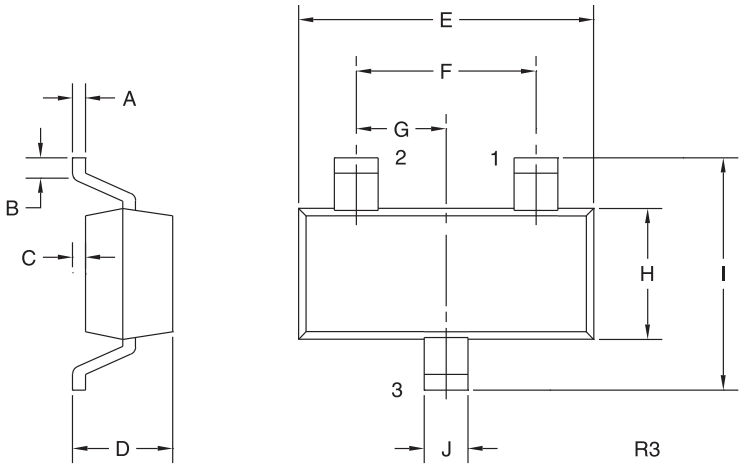
SYMBOL	**TEST CONDITIONS**	**MIN**	**TYP**	**MAX**	**UNITS**
I_{GSSF}, I_{GSSR}	V_{GS}=20V, V_{DS}=0			10	μA
I_{DSS}	V_{DS}=60V, V_{GS}=0			500	nA
BV_{DSS}	V_{GS}=0, I_D=100μA	63			V
$V_{GS(th)}$	V_{DS}=V_{GS}, I_D=250μA	1.2		2.3	V
V_{SD}	V_{GS}=0, I_S=500mA			0.9	V
$r_{DS(ON)}$	V_{GS}=10V, I_D=500mA		0.15	0.22	Ω
$r_{DS(ON)}$	V_{GS}=5.0V, I_D=500mA		0.20	0.30	Ω
$Q_{g(tot)}$	V_{DS}=10V, V_{GS}=4.5V, I_D=1.0A		2.3		nC
Q_{gs}	V_{DS}=10V, V_{GS}=4.5V, I_D=1.0A		1.0		nC
Q_{gd}	V_{DS}=10V, V_{GS}=4.5V, I_D=1.0A		0.7		nC
C_{rss}	V_{DS}=25V, V_{GS}=0, f=1.0MHz			25	pF
C_{iss}	V_{DS}=25V, V_{GS}=0, f=1.0MHz			240	pF
C_{oss}	V_{DS}=25V, V_{GS}=0, f=1.0MHz			50	pF
t_{on}	V_{DD}=30V, V_{GS}=4.5V, I_D=1.0A, R_G=6.0Ω, R_L=30Ω			35	ns
t_{off}	V_{DD}=30V, V_{GS}=4.5V, I_D=1.0A, R_G=6.0Ω, R_L=30Ω			50	ns

R2 (2-August 2011)

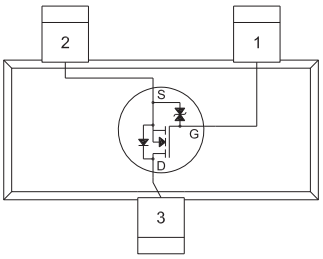
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SOT-23 CASE - MECHANICAL OUTLINE



PIN CONFIGURATION



DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.003	0.007	0.08	0.18
B	0.006	-	0.15	-
C	-	0.005	-	0.13
D	0.035	0.043	0.89	1.09
E	0.110	0.120	2.80	3.05
F	0.075		1.90	
G	0.037		0.95	
H	0.047	0.055	1.19	1.40
I	0.083	0.098	2.10	2.49
J	0.014	0.020	0.35	0.50

SOT-23 (REV: R3)

LEAD CODE:
1) Gate
2) Source
3) Drain

MARKING CODE: 702H

OUTSTANDING SUPPORT AND SUPERIOR SERVICES

PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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Central's applications engineering team is ready to discuss your design challenges. Just ask.

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- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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Parça koduyla arama

Üretici parça numarasını yazın; stok ve fiyatı hemen görün.

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Entegreden kapasitöre tüm elektronik komponent kategorileri.

Kategorilere göz atın

Üreticiler

Aradığınız üreticinin ürünlerini tek sayfada inceleyin.

Üreticileri görün

Toplu alım ve teklif

Listede olmayan ya da yüksek adetli parçalar için teklif isteyin.

Teklif isteyin

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Entegreci is an online electronic components store based in Türkiye. Search by manufacturer part number to see stock, prices and datasheets for integrated circuits, microcontrollers, transistors, passive components and connectors, or request a quote for parts that are not listed.

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