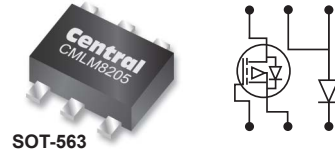


CMLM8205 MULTI DISCRETE MODULE

50V, 280mA, P-Channel MOSFET and 40V, 500mA Schottky Diode



Description:

The CENTRAL SEMICONDUCTOR CMLM8205 is a Multi Discrete Module™ consisting of a single P-Channel Enhancement Mode MOSFET and a Low V_F Schottky diode packaged in a space saving PICOMini™ SOT-563 surface mount case. This device is designed for small signal, general purpose applications where size and operational efficiency are key requirements.

Features:

MOSFET:

- $r_{DS(on)} = 3.0\Omega$ @ $I_D = 50mA$, @ $V_{GS} = 5.0V$
- $V_{GS(th)} = 1.0V$ @ $250\mu A$

Schottky Diode:

- $V_F = 0.35V$ @ $100mA$

Applications:

Ideal for a broad range of applications:

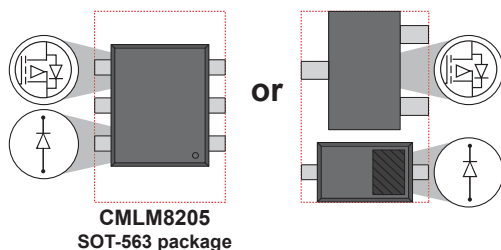
- DC / DC converters
- Power management applications
- Battery charging circuits in portable electronics

Benefits:

- Space saving, multi discrete device
- Facilitates assembly cost reduction
- Ideal building block for power management applications

Package Comparison:

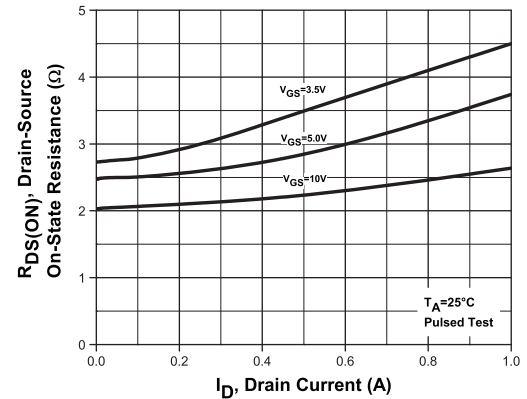
The SOT-563 utilizes **35%** less board space than SOT-523 and SOD-523



Typical Electrical Characteristic:

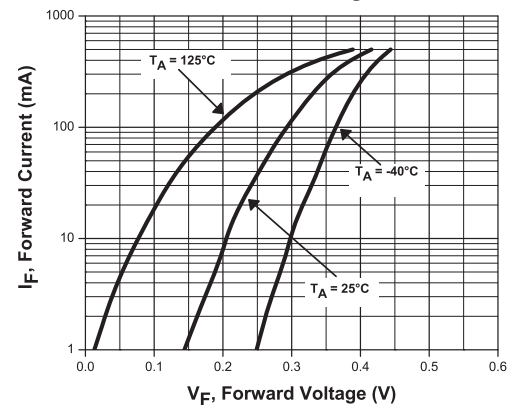
MOSFET:

Drain Source On Resistance



Schottky Diode:

Forward Voltage



To order samples of this device visit:
www.centalsemi.com/info/CMLM8205

Selection Guide:

TYPE NO.	DESCRIPTION	MOSFET								+	Low V_F Schottky Diode				
		BV_{DSS} (V) MIN	I_D (mA) MAX	$r_{DS(ON)}$ (Ω) MAX @	I_D (A) @	V_{GS} (V) @	$V_{GS(th)}$ (V) MIN	$V_{GS(th)}$ (V) MAX	t_{on}, t_{off} (ns) MAX		V_{RRM} (V) MAX	I_F (mA) MAX	V_F (V) @	I_F (mA) MAX	C_T (pF) MAX
CMLM8205	Combination: P-Channel MOSFET and Low V_F Schottky diode	50	280	2.5 3.0	0.5 0.05	10 5.0	1.0	2.5	20	+	40	500	0.27 0.35 0.47	10 100 500	50

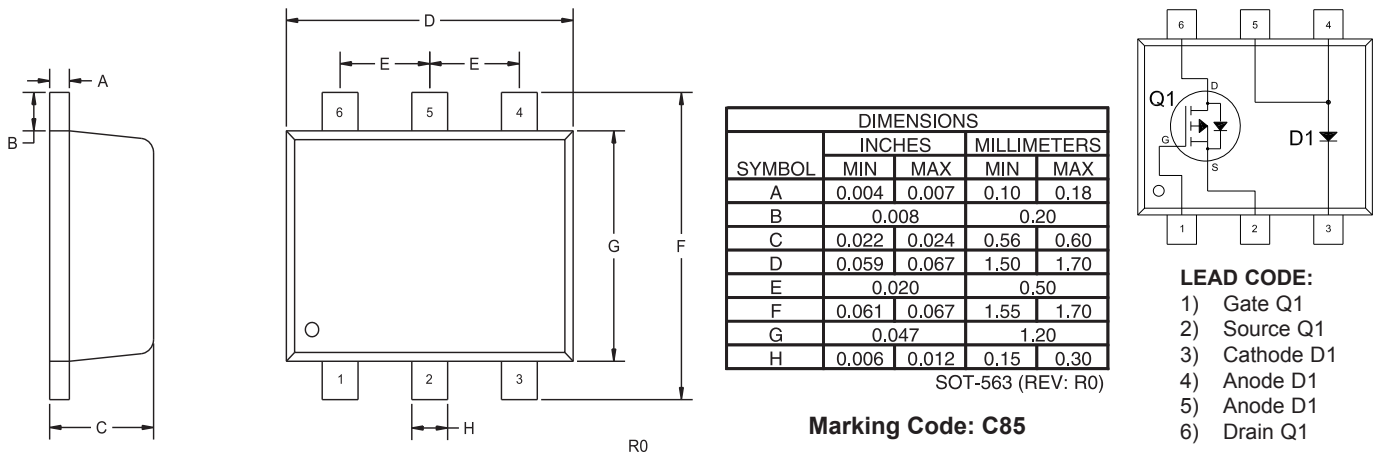
Complementary N-Channel

CMLM0205	Combination: N-Channel MOSFET and Low V_F Schottky diode	60	280	2.0 3.0	0.5 0.05	10 5.0	1.0	2.5	20	+	40	500	0.27 0.35 0.47	10 100 500	50
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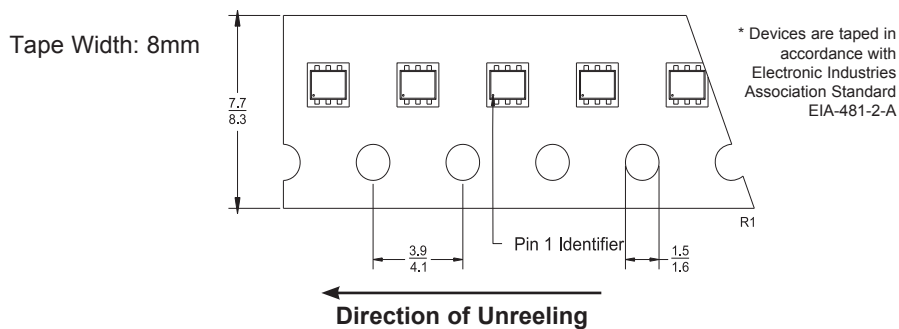
CMLM8205 Multi Discrete Module

50V, 280mA, P-Channel MOSFET and 40V, 500mA Schottky Diode

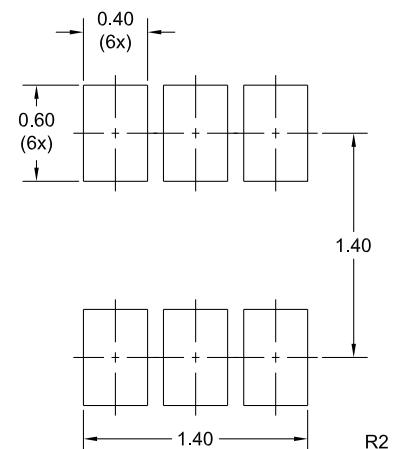
Mechanical Drawing - SOT-563



Tape Dimensions and Orientation (Dimensions in mm)



Mounting Pad Geometry (Dimensions in mm)



Packaging Base

7" Reel = 3,000 pcs. (add TR suffix to part number)

Reel Packing Information

Reel Size	Reels per Box (Maximum)	Parts per Box (Maximum)	Box Dimensions		Shipping Weight (Max.)	
			INCH	CM	LB	KG
7"	3	9,000	8x7x2	20x18x5	1	1
	9	27,000	9x9x5	23x23x13	3	2
	18	54,000	9x9x9	23x23x23	6	3
	40	120,000	21x9x9	53x23x23	13	6
	108	324,000	27x9x17	69x23x43	34	16

Sample devices available upon request. To order samples of this device visit: www.centrasemi.com/info/CMLM8205



**Innovative Discrete
Semiconductors**

For further information contact:
Sales at Central Semiconductor Corp.
(631) 435-1110 or visit our website at:
www.centrasemi.com