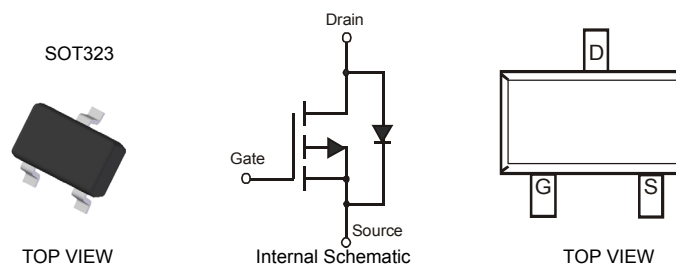


DMP2160UW**P-CHANNEL ENHANCEMENT MODE MOSFET****Features**

- Low On-Resistance
- 100mΩ @ $V_{GS} = -4.5V$
- 120mΩ @ $V_{GS} = -2.5V$
- 160mΩ @ $V_{GS} = -1.8V$
- Very Low Gate Threshold Voltage $V_{GS(th)} \leq 1V$
- Low Input Capacitance
- Fast Switching Speed
- Low Input/Output Leakage
- **Totally Lead-Free & Fully RoHS compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**
- **Qualified to AEC-Q101 Standards for High Reliability**

Mechanical Data

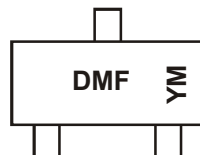
- Case: SOT323
- Case Material: Molded Plastic, "Green" Molding Compound.
UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020D
- Terminals Connections: See Diagram Below
- Terminals: Finish - Matte Tin annealed over Alloy 42 leadframe. Solderable per MIL-STD-202, Method 208 ^(e3)
- Weight: 0.006 grams (approximate)

**Ordering Information** (Note 4)

Part Number	Compliance	Case	Packaging
DMP2160UW-7	Standard	SOT323	3000/Tape & Reel

Notes:

1. No purposely added lead. Fully EU Directive 2002/95/EC (RoHS) & 2011/65/EU (RoHS 2) compliant.
2. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Marking Information

DMF = Marking Code
 YM = Date Code Marking
 Y = Year (ex: A = 2013)
 M = Month (ex: 9 = September)

Date Code Key

Year	2008	2009	2010	2011	2012	2013	2014	2015
Code	V	W	X	Y	Z	A	B	C

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D

DMP2160UW

Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	Units
Drain-Source Voltage	V _{DSS}	-20	V
Gate-Source Voltage	V _{GSS}	±12	V
Drain Current (Note 5)	I _D	T _A = +25°C -1.5	A
		T _A = +70°C -1.2	
Pulsed Drain Current	I _{DM}	-10	A

Thermal Characteristics

Characteristic	Symbol	Value	Units
Total Power Dissipation (Note 5)	P _D	350	mW
Thermal Resistance, Junction to Ambient	R _{θJA}	360	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
OFF CHARACTERISTICS (Note 6)						
Drain-Source Breakdown Voltage	BV _{DSS}	-20	—	—	V	V _{GS} = 0V, I _D = -250μA
Zero Gate Voltage Drain Current	I _{DSS}	—	—	-1.0	μA	T _J = +25°C V _{DS} = -20V, V _{GS} = 0V
Gate-Source Leakage	I _{GSS}	—	—	±100 ±800	nA	V _{GS} = ±8V, V _{DS} = 0V V _{GS} = ±12V, V _{DS} = 0V
ON CHARACTERISTICS (Note 6)						
Gate Threshold Voltage	V _{GS(th)}	-0.4	-0.6	-0.9	V	V _{DS} = V _{GS} , I _D = -250μA
Static Drain-Source On-Resistance	R _{DS(on)}	—	75	100	mΩ	V _{GS} = -4.5V, I _D = -1.5A
			90	120		V _{GS} = -2.5V, I _D = -1.2A
			120	160		V _{GS} = -1.8V, I _D = -1A
Forward Transconductance	g _{FS}	—	4	—	S	V _{DS} = -10V, I _D = -1.5A
Diode Forward Voltage (Note 6)	V _{SD}	—	—	-1.0	V	V _{GS} = 0V, I _S = -1.0A
DYNAMIC CHARACTERISTICS						
Input Capacitance	C _{iss}	—	627	—	pF	V _{DS} = -10V, V _{GS} = 0V f = 1.0MHz
Output Capacitance	C _{oss}	—	64	—	pF	
Reverse Transfer Capacitance	C _{rss}	—	53	—	pF	

Notes: 3. Device mounted on 1in² FR-4 PCB with 2 oz. Copper. t ≤ 10 sec.
4. Short duration pulse test used to minimize self-heating effect.