

Product Summary

Device	V _{(BR)DSS}	R _{DS(on)}	I _D T _A = 25°C
Q1	30V	60mΩ @ V _{GS} = 10V	3.4A
		100mΩ @ V _{GS} = 4.5V	2.7A
Q2	-30V	95mΩ @ V _{GS} = -10V	-2.8A
		140mΩ @ V _{GS} = -4.5V	-2.3A

Description and Applications

This new generation MOSFET has been designed to minimize the on-state resistance (R_{DS(on)}) and yet maintain superior switching performance, making it ideal for high efficiency power management applications.

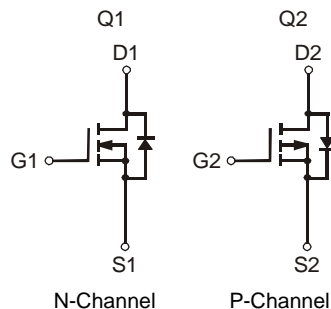
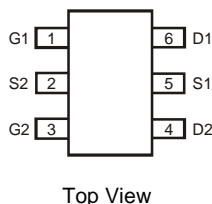
- Backlighting
- DC-DC Converters
- Power management functions

Features and Benefits

- Low On-Resistance
- Low Input Capacitance
- Fast Switching Speed
- Low Input/Output Leakage
- **Totally Lead-Free Finish; RoHS compliant (Note 1)**
- **Halogen and Antimony Free. "Green" Device (Note 2)**
- **Qualified to AEC-Q101 Standards for High Reliability**

Mechanical Data

- Case: TSOT26
- Case Material: Molded Plastic, "Green" Molding Compound. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals Connections: See Diagram
- Terminals: Finish – Matte Tin annealed over Copper leadframe. Solderable per MIL-STD-202, Method 208
- Weight: 0.013 grams (approximate)

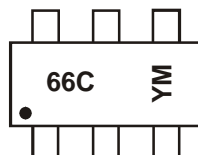


Ordering Information (Note 3)

Part Number	Case	Packaging
DMG6602SVT-7	TSOT26	3000 / Tape & Reel

- Notes:
1. EU Directive 2002/95/EC (RoHS) & 2011/65/EU (RoHS 2) compliant. All applicable RoHS exemptions applied.
 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.
 3. details go to www.twtysemi.com

Marking Information



66C = Product Type Marking Code
 YM = Date Code Marking
 Y = Year (ex: X = 2010)
 M = Month (ex: 9 = September)

Date Code Key

Year	2010	2011	2012	2013	2014	2015	2016	2017
Code	X	Y	Z	A	B	C	D	E

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

Maximum Ratings – Q1 @TA = 25°C unless otherwise specified

Characteristic			Symbol	Value	Unit
Drain-Source Voltage			V_{DSS}	30	V
Gate-Source Voltage			V_{GSS}	±20	V
Continuous Drain Current (Note 5) $V_{GS} = 10V$	Steady State	$T_A = 25^\circ C$	I_D	3.4	A
		$T_A = 70^\circ C$		2.7	
Continuous Drain Current (Note 5) $V_{GS} = 4.5V$	Steady State	$T_A = 25^\circ C$	I_D	2.7	A
		$T_A = 70^\circ C$		2.2	
Maximum Continuous Body Diode Forward Current (Note 5)			I_S	1.5	A
Pulsed Drain Current (Note 5)			I_{DM}	25	A

Maximum Ratings – Q2 @TA = 25°C unless otherwise specified

Characteristic			Symbol	Value	Unit
Drain-Source Voltage			V_{DSS}	-30	V
Gate-Source Voltage			V_{GSS}	±20	V
Continuous Drain Current (Note 5) $V_{GS} = -10V$	Steady State	$T_A = 25^\circ C$	I_D	-2.8	A
		$T_A = 70^\circ C$		-2.4	
Continuous Drain Current (Note 5) $V_{GS} = -4.5V$	Steady State	$T_A = 25^\circ C$	I_D	-2.3	A
		$T_A = 70^\circ C$		-2.1	
Maximum Continuous Body Diode Forward Current (Note 5)			I_S	-1.5	A
Pulsed Drain Current (Note 5)			I_D	-20	A

Thermal Characteristics

Characteristic		Symbol	Value	Units
Total Power Dissipation (Note 4)	$T_A = 25^\circ C$	P_D	0.84	W
	$T_A = 70^\circ C$		0.52	
Thermal Resistance, Junction to Ambient (Note 4)	Steady state	$R_{\theta JA}$	155	°C/W
	$t < 10s$		109	
Total Power Dissipation (Note 5)	$T_A = 25^\circ C$	P_D	1.27	W
	$T_A = 70^\circ C$		0.8	
Thermal Resistance, Junction to Ambient (Note 5)	Steady state	$R_{\theta JA}$	102	°C/W
	$t < 10s$		71	
Thermal Resistance, Junction to Case (Note 5)		$R_{\theta JC}$	34	
Operating and Storage Temperature Range		T_J, T_{STG}	-55 to +150	°C

- Notes: 4. Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.
5. Device mounted on FR-4 substrate PC board, 2oz copper, with 1inch square copper plate.