



Solid State Devices, Inc.

14830 Valley View Blvd * La Mirada, Ca 90638
 Phone: (562) 404-7855 * Fax: (562) 404-1773
 ssdi@ssdi-power.com * www.ssdi-power.com

SFF7002KA2GW

Dual Microminiature Package
300 mA 60 Volts 2 Ω
Dual N-Channel Logic Level
TrenchFET MOSFET

- Features:**
- Low On-resistance, < 2 ohm
 - Low Input Capacitance, < 25 pF
 - Low threshold voltage, < 2 V
 - Fast switching, < 25 ns
 - TX, TXV, and S-Level Screening Available. Consult Factory

DESIGNER'S DATA SHEET

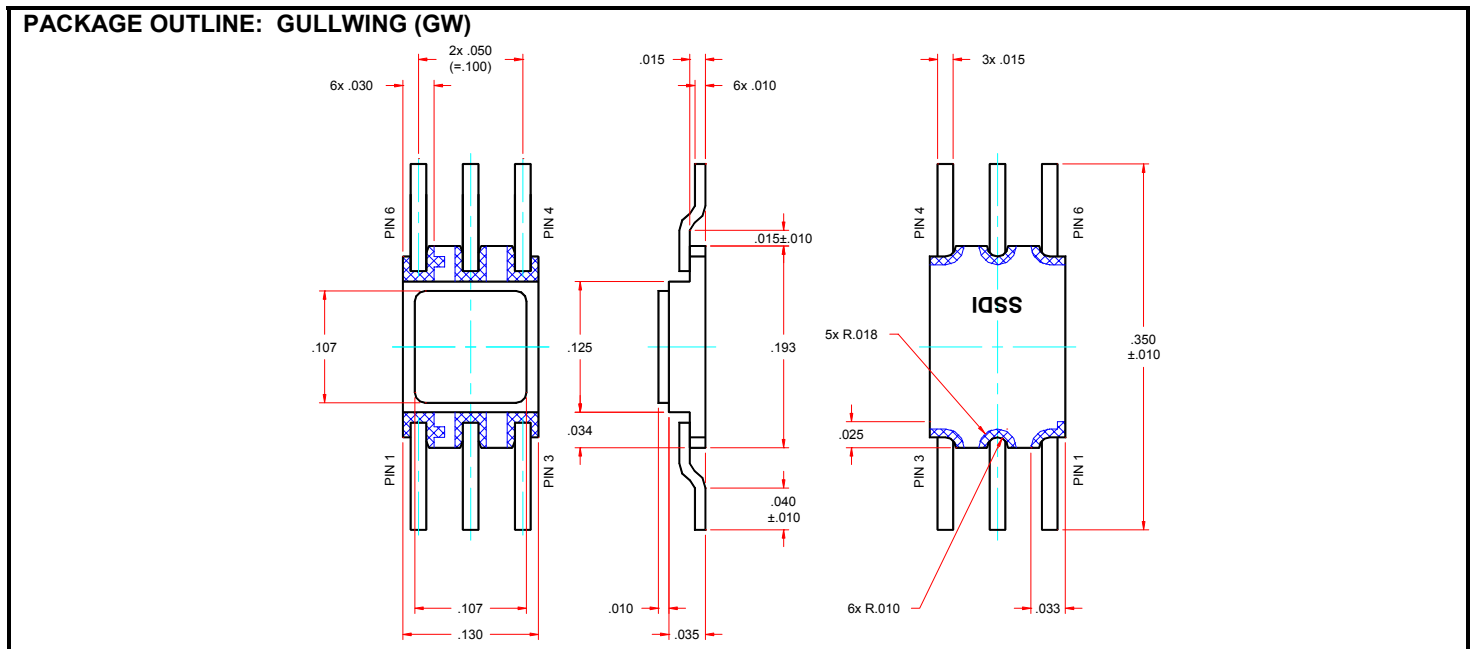
Part Number / Ordering Information^{1/}

SFF7002KA2

Screening^{2/} = Not Screened
 TX = TX Level
 TXV = TXV Level
 S = S Level

Package^{3/} GW = GULLWING

Maximum Ratings	Symbol	Value	Units
Gate – Source Voltage	V _{GS}	20	Volts
Drain to Source Voltage	V _{DS}	60	Volts
Continuous Drain Current T _A = 25°C T _A = 100°C	I _D	300 190	mA
Instantaneous (pulsed) Drain Current, T _j limited	I _{DM}	800	mA
Power Dissipation @ T _A = 25°C	P _D	350	mW
Per Device Total		500	mW
Maximum Thermal Resistance, Junction to PCB	R _{ΘJ-PCB} ^{5/}	250	°C/W
Operating & Storage Temperature	T _{OP} & T _{STG}	-65 to +200	°C



NOTE: All specifications are subject to change without notification. SCDC's for these devices should be reviewed by SSDI prior to release.

DATA SHEET #: FT0024A www.DataSheet4U.com


Solid State Devices, Inc.

14830 Valley View Blvd * La Mirada, Ca 90638

Phone: (562) 404-7855 * Fax: (562) 404-1773

ssdi@ssdi-power.com * www.ssdi-power.com

SFF7002KA2GW

Electrical Characteristics ^{4/}		Symbol	Min	Typ	Max	Units
Gate – Source Breakdown Voltage	$I_G = 10 \mu\text{A}, V_{DS} = 0 \text{ V}$	BV_{DSS}	60	70	—	Volts
Gate to Source Threshold Voltage	$V_{DS} = V_{GS}, I_D = 0.25 \text{ mA}$	$V_{GS(th)}$	1.0	2.0	2.5	Volts
Gate to Source Leakage Current	$V_{GS} = +/-20 \text{ V}, V_{DS} = 0 \text{ V}$ $V_{GS} = +/-10 \text{ V}, V_{DS} = 0 \text{ V}$ $V_{GS} = +/-5 \text{ V}, V_{DS} = 0 \text{ V}$ $V_{GS} = +/-10 \text{ V}, V_{DS} = 0 \text{ V}, T_A = 85^\circ\text{C}$	I_{GSS}		0.0005	10 150 100 1000	μA nA nA nA
Zero Gate Voltage Drain Current	$V_{DS} = 50 \text{ V}, V_{GS} = 0 \text{ V}$ $V_{DS} = 60 \text{ V}, V_{GS} = 0 \text{ V}$ $V_{DS} = 50 \text{ V}, V_{GS} = 0 \text{ V}, T_A = 85^\circ\text{C}$ $V_{DS} = 60 \text{ V}, V_{GS} = 0 \text{ V}, T_A = 125^\circ\text{C}$	I_{DSS}		0.4	10 1 100 500	nA uA nA uA
On-state Drain Current	$V_{DS} = 7.5 \text{ V}, V_{GS} = 10 \text{ V}$ $V_{DS} = 4.5 \text{ V}, V_{GS} = 10 \text{ V}$ $V_{DS} = 25 \text{ V}, V_{GS} = 10 \text{ V}$	$I_{D(ON)}$	800 500 -	- - 2.1		mA mA A
Drain – Source On-Resistance	$I_D = 500 \text{ mA}, V_{GS} = 10 \text{ V}$ $I_D = 200 \text{ mA}, V_{GS} = 10 \text{ V}$ $I_D = 50 \text{ mA}, V_{GS} = 5 \text{ V}$	$R_{DS(ON)}$		2.8 4.0 3.5	3.5 - -	Ω Ω Ω
Transconductance	$I_D = 200 \text{ mA}, V_{DS} = 10 \text{ V}$	G_{FS}	100			mS
Body Diode Forward Voltage	$I_S = 200 \text{ mA}, V_{GS} = 0 \text{ V}$	V_{SD}			1.3	V
Total Gate Charge	$V_{DS} = 10 \text{ V}, V_{GS} = 4.5 \text{ V}, I_D = 250 \text{ mA}$	Q_g	-		0.6	nC
Input Capacitance	$V_{DS} = 25 \text{ V}, V_{GS} = 0 \text{ V}, f = 1 \text{ MHz}$	C_{iss}	—	30	-	pF
Output Capacitance	$V_{DS} = 25 \text{ V}, V_{GS} = 0 \text{ V}, f = 1 \text{ MHz}$	C_{oss}	—	6	-	pF
Reverse Transfer Capacitance	$V_{DS} = 25 \text{ V}, V_{GS} = 0 \text{ V}, f = 1 \text{ MHz}$	C_{rss}	—	2.5	-	pF
Turn-on time	$V_{DD} = 30 \text{ V}, I_D = 200 \text{ mA},$ $R_L = 150 \Omega, R_G = 10 \Omega, V_G = 10 \text{ V}$	t_{ON}	—	10	25	ns
Turn-off time		t_{OFF}	—	13	35	ns

NOTES:* Pulse Test: Pulse Width = 100 μsec , Duty Cycle = 2%

1/ For Ordering Information, Price, and Availability Contact Factory.

2/ Screening per MIL-PRF-19500

3/ For Package Outlines Contact Factory.

4/ Unless Otherwise Specified, All Electrical Characteristics @25°C

5/ Mounted on FR1 PCB

**Available Part
Numbers:
SFF7002KA2GW**
PIN ASSIGNMENT

Package	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6
Gullwing	Drain	Gate	Source	Drain	Gate	Source

NOTE: All specifications are subject to change without notification.
SCD's for these devices should be reviewed by SSDI prior to release.

DATA SHEET #: FT0024A www.DataSheet4U.com