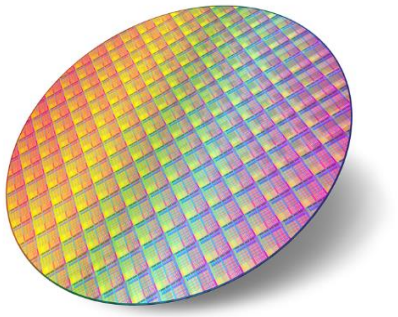
AMDW1723F

Single N-channel Trench MOSFET 40V 1.95mΩ

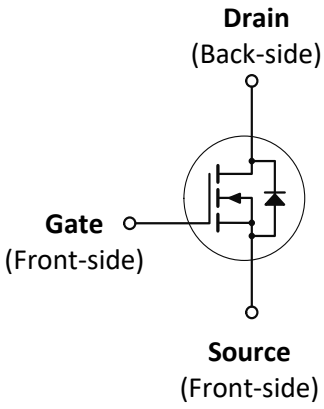
FEATURES

- **Ultra Low On-Resistance**
- **Bare die**
- **100% Tested at Probe**
- **175°C operating temperature**
- **AEC-Q101 qualified**



PRODUCT SUMMARY

V_{DS}	**40**	V
$R_{DS(on)}$	**0.00195**	Ω
Die size	**2.74 x 4.17**	mm^2
Thickness	**180**	μm



RoHS Compliant
HALOGEN-FREE

ORDERING INFORMATION

Type / Ordering Code	Package	Marking	Packing	RoHS Status
AMDW1723F	Bare Die	not defined	Sawn on Film	Halogen Free

http://www.magnachip.com

ABSOLUTE MAXIMUM RATINGS, at T_C = 25°C, unless otherwise specif

PARAMETER	SYMBOL	RATING	UNIT
Drain-source Voltage	V_{DS}	40	V
Gate-source Voltage	V_{GS}	± 20	V
Operating junction and storage temperature	T_j, T_{stg}	- 55 to +175	°C

WAFER LEVEL ELECTRICAL TEST

at T_J = 25°C, unless otherwise specified

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Drain-source breakdown voltage	$V_{(BR)DSS}$	40	-	-	V	V_{GS}=0 V, I_D=250 μA
Gate threshold voltage	$V_{GS(th)}$	2.0	3.0	4.0	V	V_{DS}=V_{GS}, I_D=250 μA
Zero gate voltage drain current	I_{DSS}	-	-	1	μA	V_{DS}=32 V, V_{GS}=0 V
		-	-	1	μA	V_{DS}=40 V, V_{GS}=0 V
Gate-source leakage current	I_{GSS}	-	-	± 100	nA	V_{GS}=±20 V, V_{DS}=0 V
[1] Drain-source on-state resistance	$R_{DS(on)}$	-	1.60	1.95	mΩ	V_{GS}=10 V, I_D=18 A
		-	1.80	2.54		V_{GS}=8 V, I_D=10 A
Diode forward voltage	V_{SD}	-	0.8	1.2	V	V_{GS}=0 V, I_S=18 A

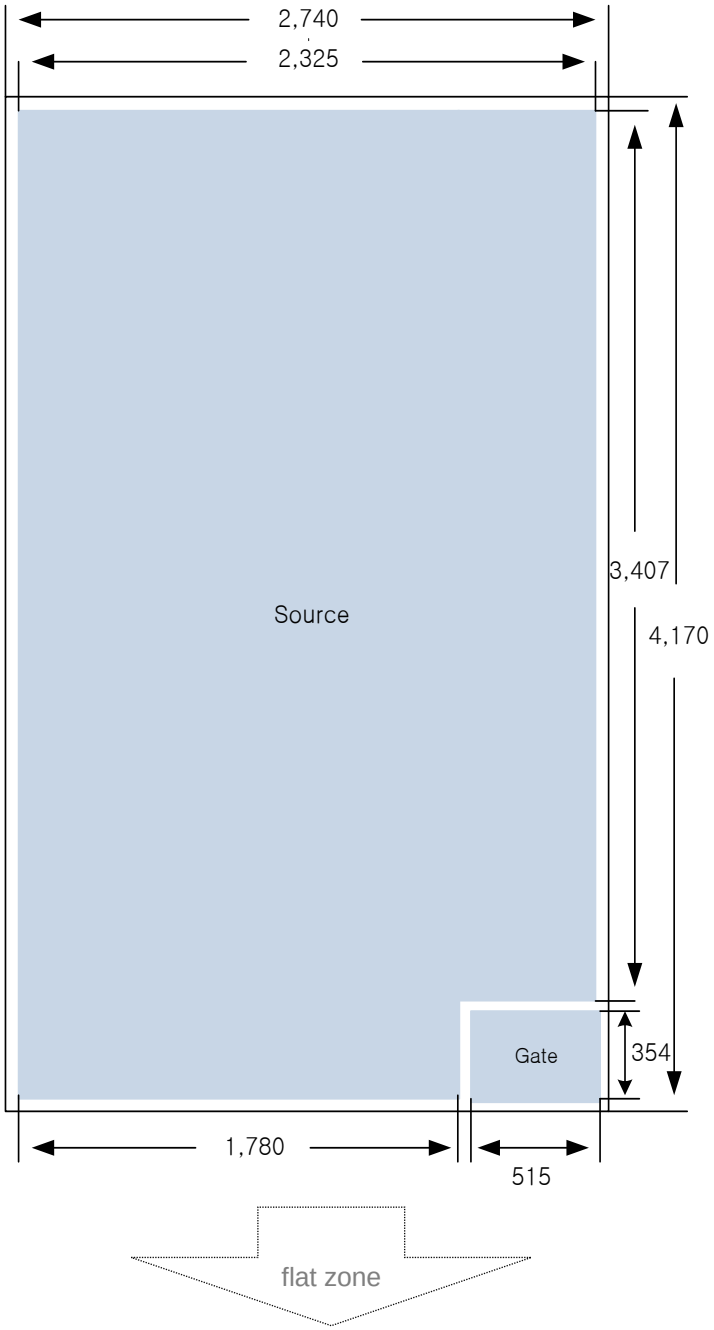
PHYSICAL DATA

CONTENTS	CONFIGURATION
Passivation	Nitride (6,000 Å) / PSPI (5.5 μm)
Back Metal Composition (Thickness)	Ti (1,000 Å) – NiV (5,000 Å) – Ag (2,200 Å)
Front Metal Composition (Thickness)	Al (40,000 Å)
Die Dimension (with S/L)	2,740 μm x 4,170 μm
Gate Pad Dimension	515 μm x 354 μm
Wafer Diameter	200 mm, with 100 flat
Wafer Thickness	180 μm
Scribe lane width	80 μm

Notes
1. Limited by wafer sort-equipment

Die information

Bare Die



(All labels are in dimension of μm)

DISCLAIMER :

The Products are not designed for use in hostile environments, including, without limitation, aircraft, nuclear power generation, medical appliances, and devices or systems in which malfunction of any Product can reasonably be expected to result in a personal injury. Seller's customers using or selling Seller's products for use in such applications do so at their own risk and agree to fully defend and indemnify Seller.