

SED1026
60V,300mA N-Channel MOSFET

Revision:A

General Description

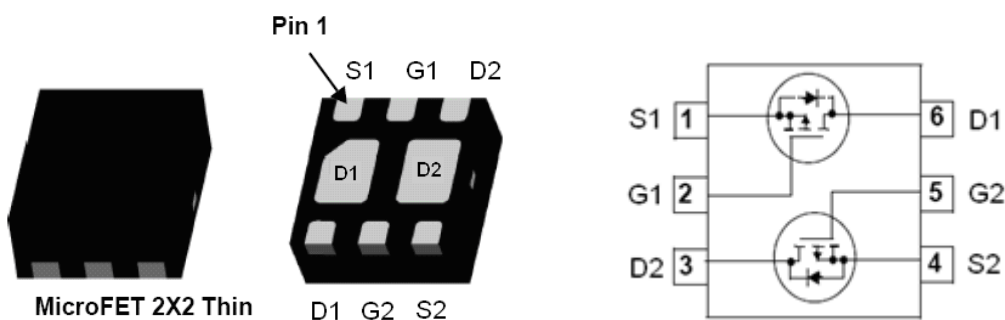
The MOSFETs from SINO-IC provide the best combination of fast switching, low on-resistance and cost-effectiveness.

Features

- $V_{DS(V)} = 60V$
- $I_D = 300mA$
- $R_{DS(ON)} < 2\Omega$ ($V_{GS} = 10V, I_D = 0.5A$)
- $R_{DS(ON)} < 3\Omega$ ($V_{GS} = 5V, I_D = 0.05A$)

Pin configurations

See Diagram below



Absolute Maximum Ratings

Parameter		Symbol	Rating	Units
Drain-Source Voltage		V_{DS}	60	V
Gate-Source Voltage		V_{GS}	± 20	V
Drain Current (Note 1)	Continuous	I_D	300	mA
	Pulsed		800	
Total Power Dissipation		P_D	350	mW
Operating Junction Temperature Range		T_J	-55 to 150	$^{\circ}C$

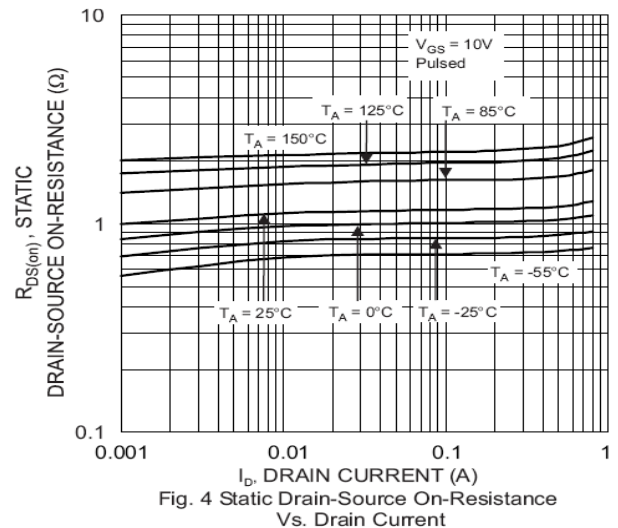
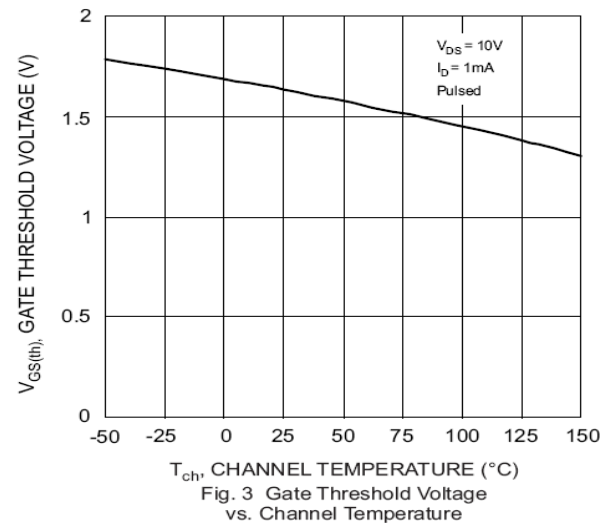
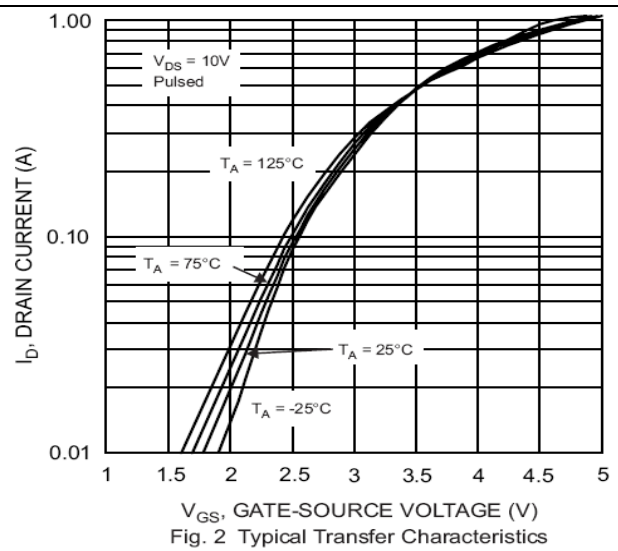
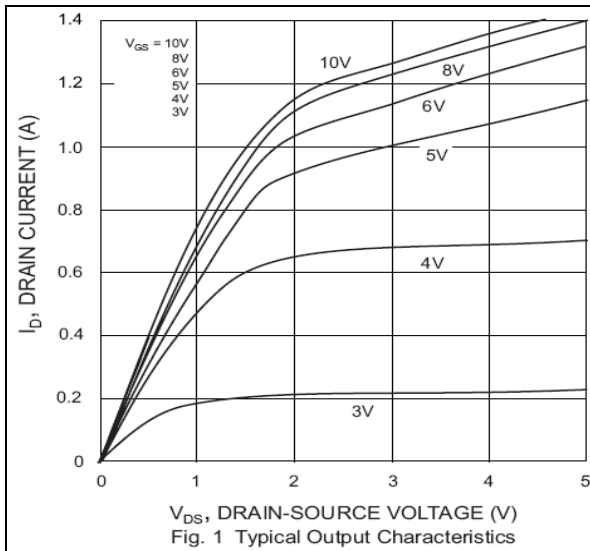
Thermal Characteristics

Parameter		Symbol	Typ	Max	Units
Maximum Junction-to-Ambient A	$t \leq 5s$	$R_{\theta JA}$	357	-	$^{\circ}C/W$

Electrical Characteristics (T_J=25°C unless otherwise noted)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Units
OFF/ON CHARACTERISTICS (Note 2)						
BV _{DSS}	Drain-Source Breakdown Voltage	I _D =10 μ A, V _{GS} =0 V	60			V
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =60V, V _{GS} =0 V			1	μ A
I _{GSS}	Gate-Body leakage current	V _{DS} =0 V, V _{GS} =±20 V			±10	μ A
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} I _D =250uA	0.45		0.85	V
R _{DS(on)}	Static Drain-Source On-Resistance ²	V _{GS} =10V, I _D =0.5A		2	-	Ω
		V _{GS} =5V, I _D =0.05A		3	-	Ω
Y _{fs}	Forward Transfer Admittance	V _{GS} = 10 V, I _S = 0.2 A	80			ms
DYNAMIC PARAMETERS						
C _{iss}	Input Capacitance	V _{GS} =0V, V _{DS} =25V, f=1MHz			50	pF
C _{oss}	Output Capacitance				25	pF
C _{rss}	Reverse Transfer Capacitance				5	pF

Typical Characteristics



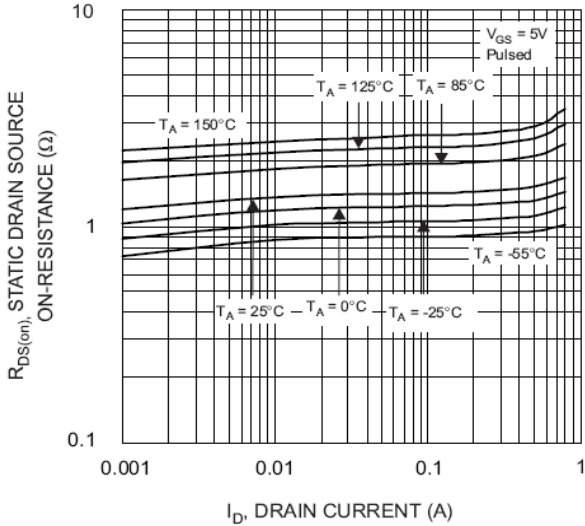


Fig. 5 Static Drain-Source On-Resistance vs. Drain Current

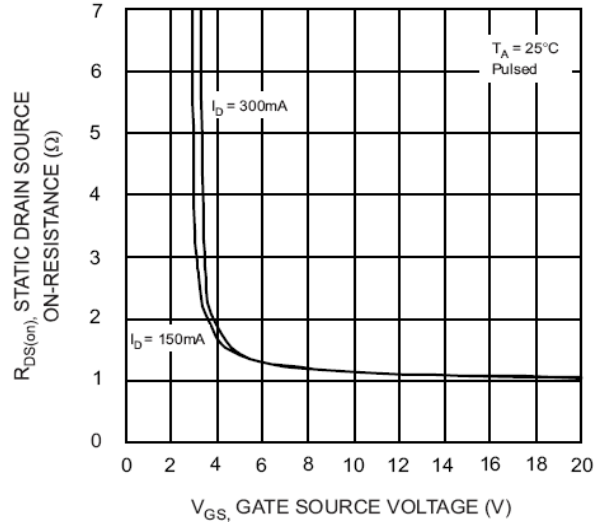


Fig. 6 Static Drain-Source On-Resistance vs. Gate-Source Voltage

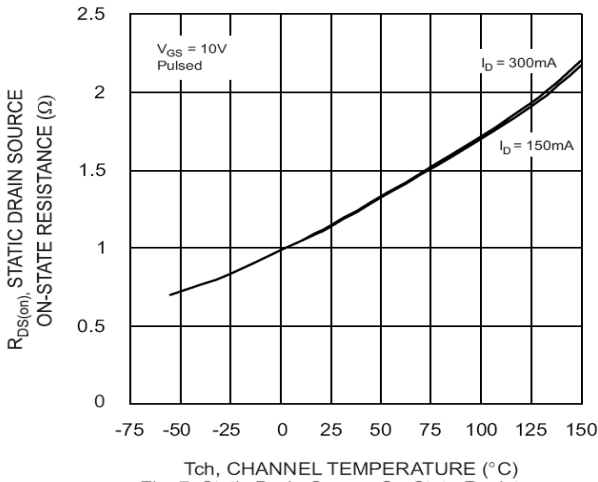


Fig. 7 Static Drain-Source On-State Resistance vs. Channel Temperature

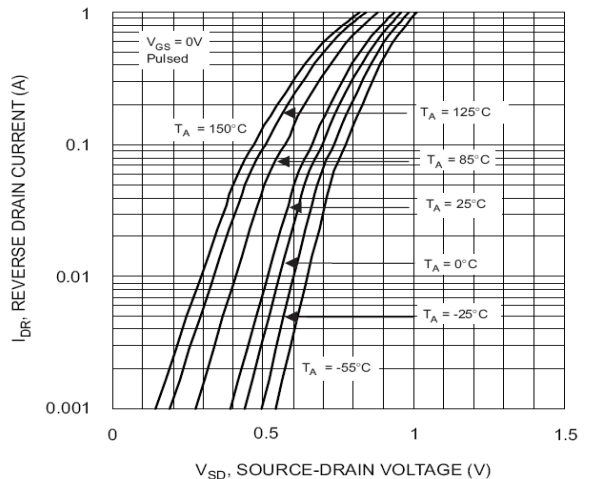


Fig. 8 Reverse Drain Current vs. Source-Drain Voltage

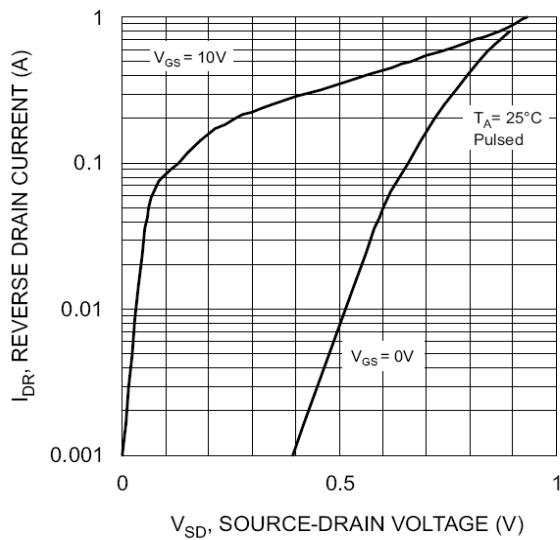


Fig. 9 Reverse Drain Current vs. Source-Drain Voltage

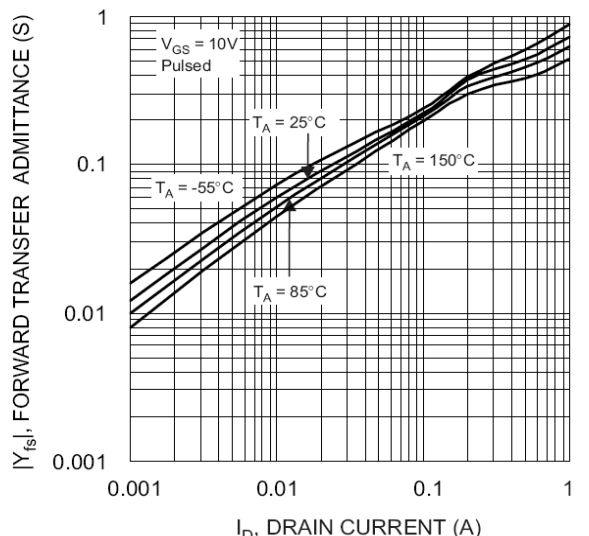
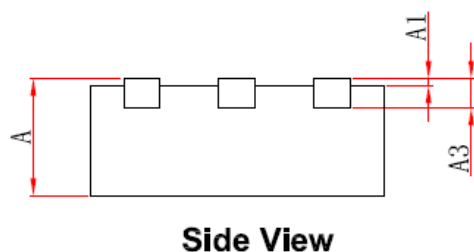
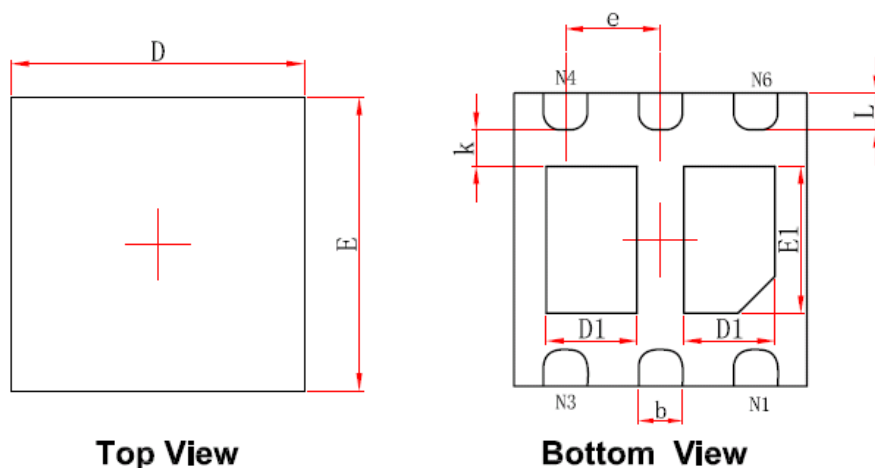


Fig. 10 Forward Transfer Admittance vs. Drain Current

SED1026

DFNWB2×2-6L-A (P0.65T0.75/0.85) PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.700/0.800	0.800/0.900	0.028/0.031	0.031/0.035
A1	0.000	0.050	0.000	0.002
A3	0.203REF.		0.008REF.	
D	1.924	2.076	0.076	0.082
E	1.924	2.076	0.076	0.082
D1	0.520	0.720	0.020	0.028
E1	0.900	1.100	0.035	0.043
k	0.200MIN.		0.008MIN.	
b	0.250	0.350	0.010	0.014
e	0.650TYP.		0.026TYP.	
L	0.174	0.326	0.007	0.013

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