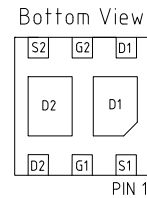
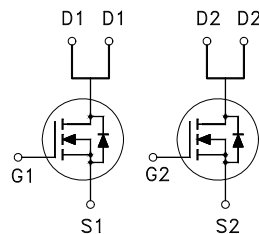


Dual N-Channel Logic Level Enhancement Mode Field Effect Transistor

Product Summary:

BV _{DSS}	30V
R _{DS(on)} (MAX.)	35mΩ
I _D	5.5A



Pb-Free Lead Plating & Halogen Free



ABSOLUTE MAXIMUM RATINGS (T_A = 25 °C Unless Otherwise Noted)

PARAMETERS/TEST CONDITIONS		SYMBOL	LIMITS	UNIT
Gate-Source Voltage		V _{GS}	±20	V
Continuous Drain Current	T _A = 25 °C	I _D	5.5	A
	T _A = 70 °C		4.5	
Pulsed Drain Current ¹		I _{DM}	22	
Power Dissipation	T _A = 25 °C	P _D	1.9	W
	T _A = 70 °C		1.2	
Operating Junction & Storage Temperature Range		T _j , T _{stg}	-55 to 150	°C

THERMAL RESISTANCE RATINGS

THERMAL RESISTANCE	SYMBOL	TYPICAL	MAXIMUM	UNIT
Junction-to-Case	R _{θJC}		15	°C / W
Junction-to-Ambient ³	R _{θJA}		65	

¹Pulse width limited by maximum junction temperature.

²Duty cycle ≤ 1%

³65°C / W when mounted on a 1 in² pad of 2 oz copper.

ELECTRICAL CHARACTERISTICS ($T_J = 25\text{ }^{\circ}\text{C}$, Unless Otherwise Noted)

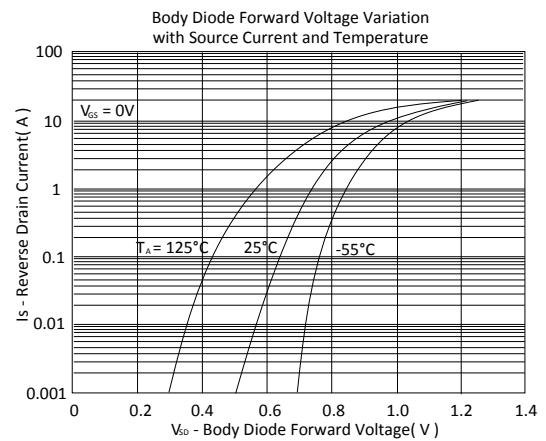
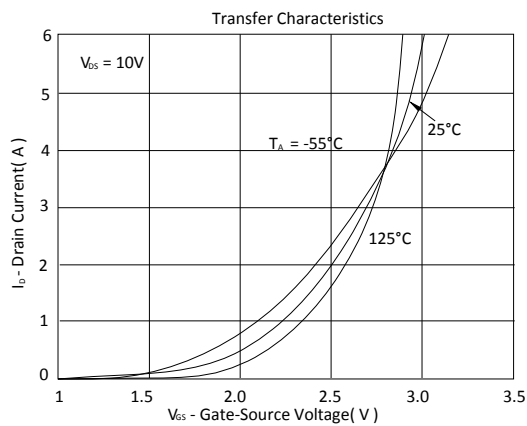
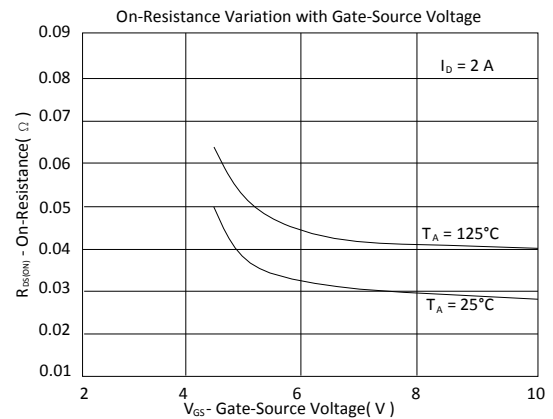
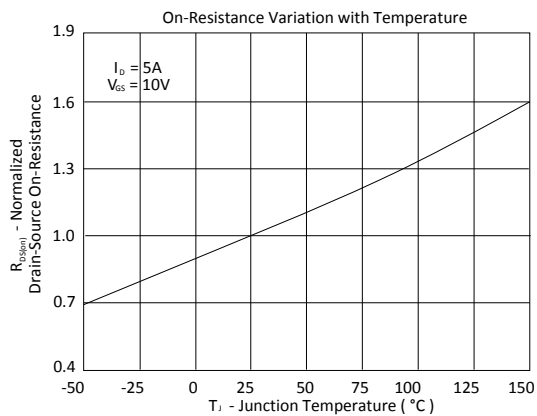
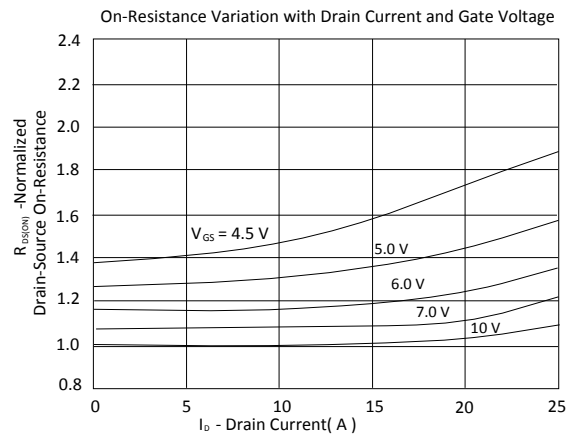
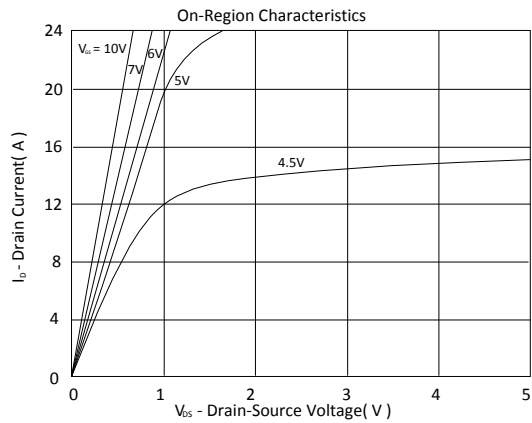
PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
STATIC						
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS} = 0V, I_D = 250\mu A$	30			V
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = 250\mu A$	1.0	1.5	3.0	
Gate-Body Leakage	I_{GSS}	$V_{DS} = 0V, V_{GS} = \pm 20V$			± 100	nA
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 24V, V_{GS} = 0V$			1	μA
		$V_{DS} = 20V, V_{GS} = 0V, T_J = 125\text{ }^{\circ}C$			25	
On-State Drain Current ¹	$I_{D(ON)}$	$V_{DS} = 5V, V_{GS} = 10V$	5.5			A
Drain-Source On-State Resistance ¹	$R_{DS(ON)}$	$V_{GS} = 10V, I_D = 5A$		29	35	m Ω
		$V_{GS} = 4.5V, I_D = 2A$		40	52	
Forward Transconductance ¹	g_{fs}	$V_{DS} = 5V, I_D = 5A$		14		S
DYNAMIC						
Input Capacitance	C_{iss}	$V_{GS} = 0V, V_{DS} = 15V, f = 1MHz$		332		pF
Output Capacitance	C_{oss}			83		
Reverse Transfer Capacitance	C_{rss}			26		
Gate Resistance	R_g	$V_{GS} = 15mV, V_{DS} = 0V, f = 1MHz$		2.6		Ω
Total Gate Charge ^{1,2}	Q_g	$V_{DS} = 15V, V_{GS} = 10V,$ $I_D = 5A$		7.5		nC
Gate-Source Charge ^{1,2}	Q_{gs}			1.1		
Gate-Drain Charge ^{1,2}	Q_{gd}			2.3		
Turn-On Delay Time ^{1,2}	$t_{d(on)}$	$V_{DS} = 15V,$ $I_D = 1A, V_{GS} = 10V, R_{GS} = 6\Omega$		8		nS
Rise Time ^{1,2}	t_r			12		
Turn-Off Delay Time ^{1,2}	$t_{d(off)}$			28		
Fall Time ^{1,2}	t_f			15		
SOURCE-DRAIN DIODE RATINGS AND CHARACTERISTICS ($T_c = 25\text{ }^{\circ}C$)						
Continuous Current	I_S				5.5	A
Pulsed Current ³	I_{SM}				22	
Forward Voltage ¹	V_{SD}	$I_F = I_S, V_{GS} = 0V$			1.2	V

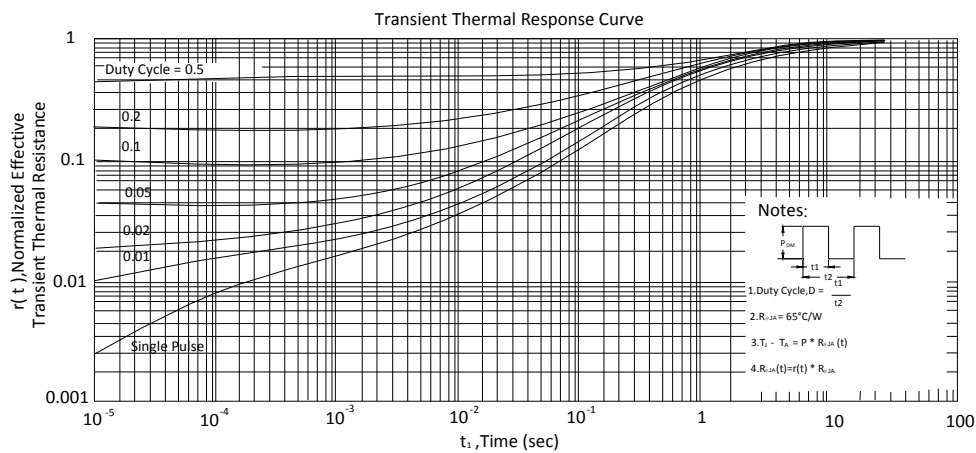
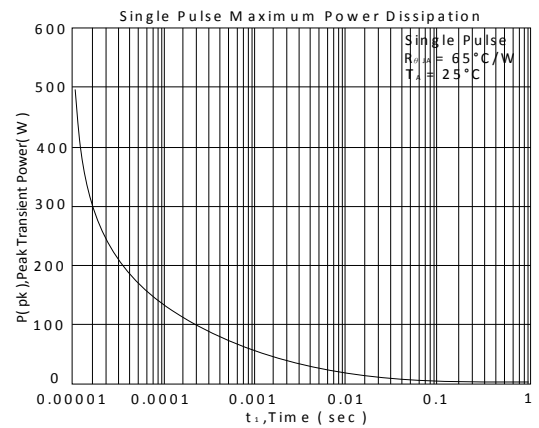
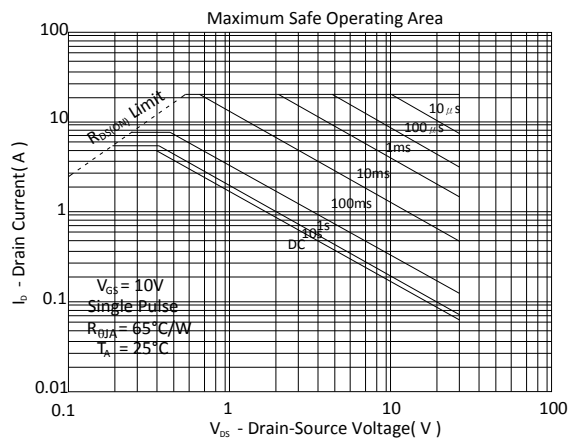
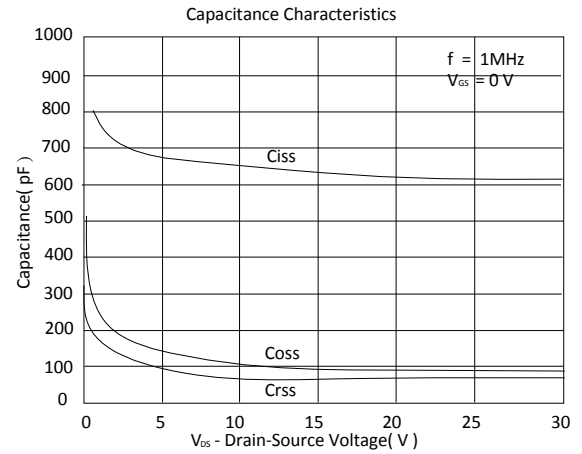
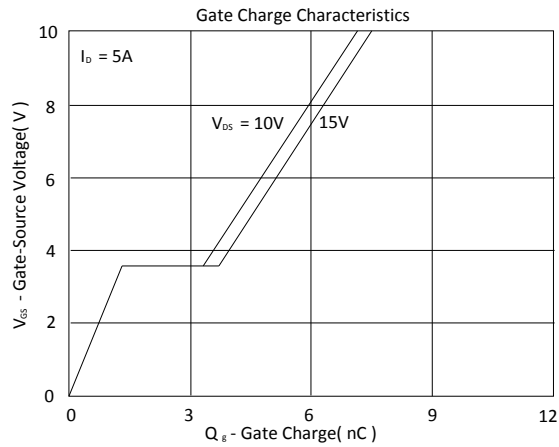
¹Pulse test : Pulse Width $\leq 300\text{ }\mu\text{sec}$, Duty Cycle $\leq 2\%$.

²Independent of operating temperature.

³Pulse width limited by maximum junction temperature.

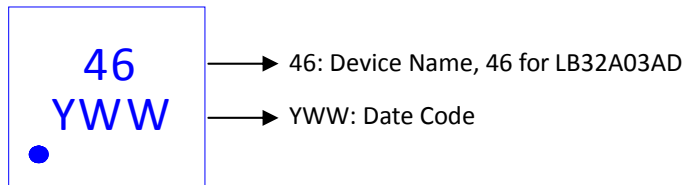
TYPICAL CHARACTERISTICS



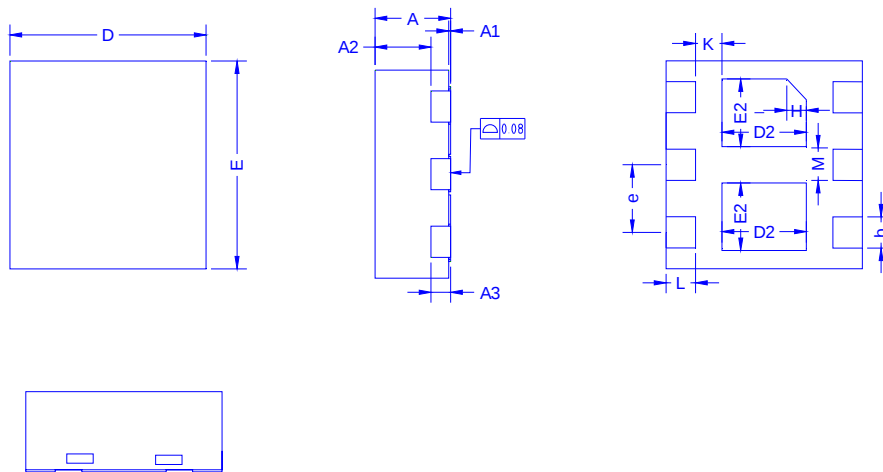


Ordering & Marking Information:

Device Name: LB32A03AD for EDFN 2 x 2



Outline Drawing



Dimension in mm

Dimension	A	A1	A2	A3	b	D	E	D2	E2	e	H	K	L	M
Min.	0.70	0.00	0.50	0.20 REF	0.25	1.90	1.90	0.76	0.55	0.55	0.20 REF	0.17	0.25	0.25
Max.	0.80	0.05	0.60		0.35	2.10	2.10	0.96	0.75	0.75		0.37	0.35	0.45

Recommended minimum pads

