

N-Channel 30-V (D-S) MOSFET

PRODUCT SUMMARY						
V _{DS} (V)	R _{DS(on)} (Ω)	I _D (A) ^a	Q _g (Typ.)			
30	0.008 at V _{GS} = 10 V	13	61 pC			
	0.011 at V _{GS} = 4.5 V	11	0.1110			

FEATURES

- Halogen-free
- TrenchFET[®] Power MOSFET
- Optimized for High-Side Synchronous Rectifier Operation
- 100 % R_g Tested
- 100 % UIS Tested

APPLICATIONS

Notebook CPU Core
- High-Side Switch



N-Channel MOSFET

ABSOLUTE MAXIMUM RATINGS $T_A = 25 \text{ °C}$, unless otherwise noted						
Parameter	Symbol	Limit	Unit			
Drain-Source Voltage		V _{DS}	30	V		
Gate-Source Voltage		V _{GS}	± 20			
	T _C = 25 °C		13			
Continuous Drain Current (T. – 150 °C)	T _C = 70 °C		10			
Continuous Drain Current (1) = 150°C)	T _A = 25 °C	D	9 ^{b, c}			
	T _A = 70 °C		7 ^{b, c}	^		
Pulsed Drain Current		I _{DM}	45	A		
Continuous Source Drain Diade Current	T _C = 25 °C	la la	3.7			
Continuous Source-Drain Diode Current	T _A = 25 °C	'S	2.0 ^{b, c}			
Single Pulse Avalanche Current		I _{AS}	20			
Avalanche Energy	L = 0.1 mm	E _{AS}	21	mJ		
	T _C = 25 °C		4.1			
Maximum Bawar Dissipation	T _C = 70 °C	P_	2.5	10/		
	T _A = 25 °C	10	2.2 ^{b, c}	vv		
	T _A = 70 °C		1.3 ^{b, c}			
Operating Junction and Storage Temperature Range	T _J , T _{stg}	- 55 to 150	°C			

THERMAL RESISTANCE RATINGS						
Parameter		Symbol	Typical	Maximum	Unit	
Maximum Junction-to-Ambient ^{b, d}	t ≤ 10 s	R _{thJA}	39	55	°C/M	
Maximum Junction-to-Foot (Drain)	Steady State	R _{thJF}	25	29	0/11	

Notes:

a. Base on T_C = 25 °C.

b. Surface Mounted on 1" x 1" FR4 board.

c. t = 10 s.

d. Maximum under Steady State conditions is 85 °C/W.





$\begin{array}{ c c c c c c c } \hline Parameter & Symbol & Test Conditions & Min. & Typ. & Max. & Unit \\ \hline Static & & & & & & & & & & & & & & & & & & &$	SPECIFICATIONS T _J = 25 °C, unless otherwise noted								
$\begin{array}{ c c c c c c c } \hline Static & V \\ Drain-Source Breakdown Voltage & V \\ V_{DS} Temperature Coefficient & AV \\ V_{DS} Temperature Coefficient & AV \\ V_{OS} Temperature Coefficient & AV \\ State-Source Leakage & V \\ Cate-Source Leakage & V \\ Cate-Source Leakage & V \\ Cate-Source Leakage & V \\ State Source Constate Resistance^8 & V \\ State Source Constate Resistance & C \\ State Source Charge & C \\ State Source Charge & Q \\ State Source Charge & State \\ State Source Charge & Q \\ State So$	Parameter	Symbol	Test Conditions	Min.	Тур.	Max.	Unit		
$ \begin{array}{c c c c c c c } \mbox{Prior Breakdown Voltage} & V_{DS} & V_{GS} = 0 V, I_D = 250 \mu A & 30 & & & V & \\ \hline V_{DS} Temperature Coefficient & V_{CS}(m)T_J & I_D = 250 \mu A & & & & & & & & & & & & & & & & & &$	Static								
$ \begin{array}{ c c c c } \hline V_{DS} = mperature Coefficient $ $AV_{DS}''_{J}$ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $	Drain-Source Breakdown Voltage	V _{DS}	$V_{GS} = 0 \text{ V}, \text{ I}_{D} = 250 \mu\text{A}$	30			V		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	V _{DS} Temperature Coefficient	$\Delta V_{DS}/T_{J}$	l _α = 250 μΑ		26		m\//°C		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	V _{GS(th)} Temperature Coefficient	$\Delta V_{GS(th)}/T_J$	η – 200 μπ		- 6				
$ \begin{array}{c c c c c c c } \hline Gate-Source Leakage & I_{GSS} & V_{DS} = 0 V, V_{OS} = \pm 20 V & & & \pm 100 & nA \\ \hline & & V_{DS} = 30 V, V_{OS} = 0 V, V_{OS} = 10 V, I_{D} = 10 A \\ \hline & 0 Onother Onother $	Gate-Source Threshold Voltage	V _{GS(th)}	$V_{DS} = V_{GS}, I_D = 250 \ \mu A$	1.0		3.0	V		
$ \begin{array}{c c c c c c c } \hline V_{DS} = 30 \ V, V_{GS} = 0 \ V, V_{GS}$	Gate-Source Leakage	I _{GSS}	$V_{DS} = 0 V, V_{GS} = \pm 20 V$			± 100	nA		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Zara Gata Valtaga Drain Current	lace	$V_{DS} = 30 \text{ V}, V_{GS} = 0 \text{ V}$			1			
$ \begin{array}{c c c c c } \mbox{On-State Drain Current^3} & b_{(0n)} & V_{DS} \geq 5 V, V_{OS} = 10 V, \ b_{D} = 10 A \\ \hline V_{OS} = 10 V, \ b_{D} = 10 A & 0.008 & 0.$	Zero Gale voltage Drain Current	USS	V_{DS} = 30 V, V_{GS} = 0 V, T_{J} = 55 °C			10	μΑ		
$ \begin{array}{ c c c c c } \hline Prain-Source On-State Resistance^3 & P_{DS}(n) & V_{GS} = 10 V, I_D = 10 A & 0.008 & I & 0.011 & I & V_{GS} = 15 V, I_D = 9 A & 0.011 & I & S & S \\ \hline \hline V_{GS} = 4.5 V, I_D = 9 A & 0.011 & I & S & S & S & S & S & S & S & S & S$	On-State Drain Current ^a	I _{D(on)}	$V_{DS} \ge 5 \text{ V}, \text{ V}_{GS} = 10 \text{ V}$	20			А		
$ \begin{array}{ c c c c c } \mbox{Dram-Source On-State Resistance} & \mbox{Pise} & \mbox{V}_{OS} = 4.5 \ V, \ \mbox{I}_{D} = 9 \ A & 0.011 & \mbox{I}_{O} & \mbox{I}_{O} & \mbox{Source On-State Resistance} & \mbox{I}_{O} & \mbox{V}_{DS} = 15 \ V, \ \mbox{V}_{DS} = 5 \ V, \ \mbox{V}_{DS} = 10 \ A \ \mbox{V}_{DS} = 15 \ V, \ \mbox{V}_{DD} = 15 \ V, \ \mbox{V}_{DD} = 15 \ V, \ \mbox{V}_{DD} = 15 \ V, \ \mbox{V}_{DS} = 10 \ M \ \mbox{M} & 110 \ 18 \ 10 \ 10 \ 10 \ 10 \ 10 \ 10 $	Drain Course On State Desistance	Baar	V _{GS} = 10 V, I _D = 10 A		0.008		Ω		
$ \begin{array}{c c c c c c } \hline Forward Transconductance^{A} & g_{fs} & V_{DS} = 15 V, V_{DS} = 10 A & 50 & V & S \\ \hline timesembody linesembody $	Drain-Source On-State Resistance ^a	''DS(on)	V _{GS} = 4.5 V, I _D = 9 A		0.011				
$ \begin{array}{ c c c c c c } \hline \textbf{Dynamic}^b & & & & & & & & & & & & & & & & & & &$	Forward Transconductance ^a	9 _{fs}	V _{DS} = 15 V, I _D = 10 A		50		S		
$ \begin{array}{ c c c c c c } \hline Input Capacitance & C_{ISS} & V_{DS} = 15 \ V, \ V_{GS} = 0 \ V, \ f = 1 \ MHz & 165 & P_{F} \\ \hline \\ $	Dynamic ^b								
$ \begin{array}{ c c c c c } \hline \text{Output Capacitance} & C_{oss} & V_{DS} = 15 \ V, \ V_{GS} = 0 \ V, \ f = 1 \ MHz & 165 & 0 & pF \\ \hline \text{Reverse Transfer Capacitance} & C_{rss} & V_{DS} = 15 \ V, \ V_{GS} = 10 \ V, \ l_D = 10 \ A & 15 & 23 & 0 & 0 \\ \hline \text{Total Gate Charge} & Q_{gs} & V_{DS} = 15 \ V, \ V_{GS} = 10 \ V, \ l_D = 10 \ A & 15 & 23 & 0 & 0 \\ \hline \text{Gate-Drain Charge} & Q_{gd} & & 0.36 & 1.8 & 3.6 & \Omega & 0 \\ \hline \text{Gate-Drain Charge} & Q_{gd} & f = 1 \ MHz & 0.36 & 1.8 & 3.6 & \Omega & 0 \\ \hline \text{Gate-Drain Charge} & Q_{gd} & f = 1 \ MHz & 0.36 & 1.8 & 3.6 & \Omega & 0 \\ \hline \text{Gate-Drain Charge} & T_{d(on)} & & V_{DS} = 15 \ V, \ V_{GS} = 5 \ V, \ l_D = 10 \ A & 0.5 & 1.8 & 3.6 & \Omega & 0 \\ \hline \text{Gate-Drain Charge} & T_{d(on)} & & V_{DD} = 15 \ V, \ R_L = 1.4 \ \Omega & 16 & 22 & 0 \\ \hline \text{Rise Time} & t_r & & I6 & 22 & 0 \\ \hline \text{Fall Time} & t_f & & I6 & 22 & 0 \\ \hline \text{Fall Time} & t_f & & I6 & 22 & 0 \\ \hline \text{Fall Time} & t_f & & I6 & 22 & 0 \\ \hline \text{Fall Time} & t_f & & I6 & 22 & 0 \\ \hline \text{Fall Time} & t_f & & I6 & 22 & 0 \\ \hline \text{Fall Time} & t_f & & I6 & 22 & 0 \\ \hline \text{Fall Time} & t_f & & V_{DD} = 15 \ V, \ R_L = 1.4 \ \Omega & 10 & 18 & 0 & 0 \\ \hline \text{Rise Time} & t_f & & I6 & 22 & 0 \\ \hline \text{Fall Time} & t_f & & V_{DD} = 15 \ V, \ R_S = 10 \ V, \ R_S = 1 \ \Omega & 10 & 20 & 0 \\ \hline \text{Fall Time} & t_f & & I6 & 22 & 0 \\ \hline \text{Fall Time} & t_f & & I6 & 22 & 0 \\ \hline \text{Fall Time} & t_f & & I6 & 22 & 0 \\ \hline \text{Fall Time} & t_f & & I6 & 22 & 0 & 0 & 0 \\ \hline \text{Fall Time} & t_f & & I6 & 0 & 22 & 0 & 0 & 0 \\ \hline \text{Fall Time} & t_f & & I6 & 0 & 0 & 0 & 0 \\ \hline \text{Fall Time} & t_f & & I6 & 0 & 0 & 0 & 0 \\ \hline \text{Fall Time} & t_f & & I6 & 0 & 0 & 0 & 0 \\ \hline \text{Fall Time} & t_f & & I6 & 0 & 0 & 0 & 0 & 0 \\ \hline \text{Fall Time} & t_f & & I6 & 0 & 0 & 0 & 0 & 0 \\ \hline \text{Fall Time} & \text{Fall Time} & & I_S & & I6 & 0 & 0 & 0 & 0 \\ \hline \text{Fall Time} & \text{Fall Time} & & I_S & 0 & 0 & 0 & 0 & 0 \\ \hline \text{Fall Time} & \text{Fall Time} & & I_F = 9 \ A, \ \text{A} & \text{A} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline \text{Fall Time} & \text{Fall Time} & & 0 & 0 & 0 & 0 & 0 \\ \hline \text{Fall Time} & \text{Fall Time} & & 0 & I_S & 0 & 0 & 0 & 0 \\ \hline \text{Fall Time} & Fall Tim$	Input Capacitance	C _{iss}			800		pF		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Output Capacitance	C _{oss}	V_{DS} = 15 V, V_{GS} = 0 V, f = 1 MHz		165				
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Reverse Transfer Capacitance	C _{rss}			73				
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Total Gate Charge	0	$V_{DS} = 15 \text{ V}, \text{ V}_{GS} = 10 \text{ V}, \text{ I}_{D} = 10 \text{ A}$		15	23	nC		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		∽g			6.8	10.2			
$\begin{array}{ c c c c c } \hline Gate - Drain Charge & Q_{gd} & & & & & & & & & & & & & & & & & & &$	Gate-Source Charge	Q _{gs}	V_{DS} = 15 V, V_{GS} = 5 V, I_{D} = 10 A		2.5				
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Gate-Drain Charge	Q _{gd}			2.3				
$ \begin{array}{ c c c c } \hline \mbox{Turn-On Delay Time} & \mbox{t}_{d(on)} \\ \hline \mbox{Rise Time} & \mbox{t}_{r} \\ \hline \mbox{Turn-Off Delay Time} & \mbox{t}_{d(off)} \\ \hline \mbox{Fall Time} & \mbox{t}_{f} \\ \hline \mbox{Turn-On Delay Time} & \mbox{t}_{d(on)} \\ \hline \mbox{Rise Time} & \mbox{t}_{f} \\ \hline \mbox{Turn-On Delay Time} & \mbox{t}_{d(on)} \\ \hline \mbox{Rise Time} & \mbox{t}_{r} \\ \hline \mbox{Turn-On Delay Time} & \mbox{t}_{d(off)} \\ \hline \mbox{Rise Time} & \mbox{t}_{r} \\ \hline \mbox{Turn-Off Delay Time} & \mbox{t}_{d(off)} \\ \hline \mbox{Turn-Off Delay Time} & \mbox{t}_{r} \\ \hline \mbox{Turn-Delay Time} & \mbox{t}_{r} \\ \hline \mbox{Turn-Delay Time} & Turn$	Gate Resistance	Rg	f = 1 MHz	0.36	1.8	3.6	Ω		
$\begin{array}{c c c c c c c c c } \hline Rise Time & t_r & V_{DD} = 15 \ V, \ R_L = 1.4 \ \Omega & 12 & 16 \\ \hline I_D \cong 9 \ A, \ V_{GEN} = 4.5 \ V, \ R_g = 1 \ \Omega & 16 & 22 \\ \hline I_D \cong 9 \ A, \ V_{GEN} = 4.5 \ V, \ R_g = 1 \ \Omega & 10 & 18 \\ \hline I_D \cong 9 \ A, \ V_{GEN} = 4.5 \ V, \ R_g = 1 \ \Omega & 10 & 18 \\ \hline I_D \cong 9 \ A, \ V_{GEN} = 1.4 \ \Omega & 10 & 20 \\ \hline I_D \cong 9 \ A, \ V_{GEN} = 1.5 \ V, \ R_L = 1.4 \ \Omega & 10 & 20 \\ \hline I_D \cong 9 \ A, \ V_{GEN} = 10 \ V, \ R_g = 1 \ \Omega & 16 & 22 \\ \hline I_D \cong 9 \ A, \ V_{GEN} = 10 \ V, \ R_g = 1 \ \Omega & 16 & 22 \\ \hline Fall Time & t_r & I_D \cong 9 \ A, \ V_{GEN} = 10 \ V, \ R_g = 1 \ \Omega & 16 & 22 \\ \hline Fall Time & t_r & I_D \cong 9 \ A, \ V_{GEN} = 10 \ V, \ R_g = 1 \ \Omega & 16 & 22 \\ \hline Fall Time & t_r & I_D \cong 9 \ A, \ V_{GEN} = 10 \ V, \ R_g = 1 \ \Omega & 16 & 22 \\ \hline Fall Time & t_r & I_S & I_C = 25 \ C & I_D & I_D & A \\ \hline Pulse Diode Forward Current^a \ I_S & I_S \ Pa \ A \ A \ A \ A \ A \ A \ A \ A \ A \ $	Turn-On Delay Time	t _{d(on)}			16	23			
$\begin{array}{c c c c c c c c } \hline Turn-Off Delay Time & t_{d(off)} & I_D \cong 9 \text{ A}, \ V_{GEN} = 4.5 \text{ V}, \ R_g = 1 \Omega & 16 & 22 & \\ \hline I & 10 & 18 & \\ \hline I & 10 & 10 & 20 & \\ \hline I & 10 &$	Rise Time	t _r	V_{DD} = 15 V, R_L = 1.4 Ω		12	16			
$\begin{tabular}{ c c c c c } \hline Fall Time & t_f & & & & & & & & & & & & & & & & & & &$	Turn-Off Delay Time	t _{d(off)}	$I_D \cong$ 9 A, V_{GEN} = 4.5 V, R_g = 1 Ω		16	22			
$\begin{tabular}{ c c c c c c } \hline Turn-On Delay Time & t_d(on) & & & & & & & & & & & & & & & & & & &$	Fall Time	t _f			10	18	ns		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Turn-On Delay Time	t _{d(on)}			8	16	113		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Rise Time	t _r	V_{DD} = 15 V, R_L = 1.4 Ω		10	20			
$ \begin{array}{c c c c c c c c c } Fall Time & t_f & & & & & & & & & & & & & & & & & & &$	Turn-Off Delay Time	t _{d(off)}	$\text{I}_\text{D} \cong$ 9 A, V_GEN = 10 V, R_g = 1 Ω		16	22			
$\begin{array}{c c c c c c c c } \hline Drain-Source Body Diode Characteristics \\ \hline Continuous Source-Drain Diode Current & I_S & T_C = 25 \ ^{\circ}C & 10 & 10 \\ \hline Pulse Diode Forward Current^a & I_{SM} & 50 & 50 \\ \hline Body Diode Voltage & V_{SD} & I_S = 9 \ A & 0.8 & 1.2 & V \\ \hline Body Diode Reverse Recovery Time & t_{rr} & 15 & 30 & ns \\ \hline Body Diode Reverse Recovery Charge & Q_{rr} & I_F = 9 \ A, \ dI/dt = 100 \ A/\mus, \ T_J = 25 \ ^{\circ}C & 8 & \\ \hline \end{array}$	Fall Time	t _f			8	15			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Drain-Source Body Diode Characteristics								
Pulse Diode Forward Current ^a ISM501Body Diode Voltage V_{SD} $I_S = 9 A$ 0.81.2VBody Diode Reverse Recovery Time t_{rr} 1530nsBody Diode Reverse Recovery Charge Q_{rr} $I_F = 9 A$, dl/dt = 100 A/µs, $T_J = 25 °C$ 612nCReverse Recovery Fall Time t_a t_a 81	Continuous Source-Drain Diode Current	ا _S	T _C = 25 °C			10	Δ		
Body Diode Voltage V_{SD} $I_S = 9 A$ 0.81.2VBody Diode Reverse Recovery Time t_{rr} 1530nsBody Diode Reverse Recovery Charge Q_{rr} $I_F = 9 A$, dl/dt = 100 A/µs, $T_J = 25 °C$ 612nCReverse Recovery Fall Time t_a 8 151515	Pulse Diode Forward Current ^a	I _{SM}				50			
Body Diode Reverse Recovery Time t_{rr} 1530nsBody Diode Reverse Recovery Charge Q_{rr} $I_F = 9 \text{ A}, dI/dt = 100 \text{ A/}\mu\text{s}, T_J = 25 ^{\circ}\text{C}$ 612nCReverse Recovery Fall Time t_a 8 8 1	Body Diode Voltage	V _{SD}	I _S = 9 A		0.8	1.2	V		
Body Diode Reverse Recovery Charge Q_{rr} $I_F = 9 \text{ A}, dI/dt = 100 \text{ A/}\mu\text{s}, T_J = 25 ^{\circ}\text{C}$ 612nCReverse Recovery Fall Time t_a	Body Diode Reverse Recovery Time	t _{rr}			15	30	ns		
Reverse Recovery Fall Time t _a	Body Diode Reverse Recovery Charge	Q _{rr}	I= = 9 A dl/dt = 100 A/us T - 25 °C		6	12	nC		
	Reverse Recovery Fall Time	t _a	$F = 5 A$, $a_1a_1 = 100 A \mu_3$, $F_1 = 25 C$		8		00		
Reverse Recovery Rise Time t _b 7	Reverse Recovery Rise Time	Recovery Rise Time t _b			7		ns		

emi

Notes:

a. Pulse test; pulse width \leq 300 µs, duty cycle \leq 2 %. b. Guaranteed by design, not subject to production testing.

Stresses beyond those listed under "Absolute Maximum Ratings" may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated in the operational sections of the specifications is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.



TYPICAL CHARACTERISTICS 25 °C, unless otherwise noted











TYPICAL CHARACTERISTICS 25 °C, unless otherwise noted









On-Resistance vs. Gate-to-Source Voltage









TYPICAL CHARACTERISTICS 25 °C, unless otherwise noted



* The power dissipation P_D is based on $T_{J(max)} = 150$ °C, using junction-to-case thermal resistance, and is more useful in settling the upper dissipation limit for cases where additional heatsinking is used. It is used to determine the current rating, when this rating falls below the package limit.

2



Bsemi

www.VBsemi.tw

TYPICAL CHARACTERISTICS 25 °C, unless otherwise noted

Normalized Thermal Transient Impedance, Junction-to-Foot



SOIC (NARROW): 8-LEAD





	MILLIM	IETERS	INCHES		
DIM	Min	Max	Min	Мах	
А	1.35	1.75	0.053	0.069	
A ₁	0.10	0.20	0.004	0.008	
В	0.35	0.51	0.014	0.020	
С	0.19	0.25	0.0075	0.010	
D	4.80	5.00	0.189	0.196	
E	3.80	4.00	0.150	0.157	
е	1.27 BSC		0.050 BSC		
Н	5.80	6.20	0.228	0.244	
h	0.25	0.50	0.010	0.020	
L	0.50	0.93	0.020	0.037	
q	0°	8°	0°	8°	
S	0.44	0.64	0.018	0.026	
ECN: C-06527-Rev. I, 11-Sep-06 DWG: 5498					



RECOMMENDED MINIMUM PADS FOR SO-8



Recommended Minimum Pads Dimensions in Inches/(mm)



Disclaimer

All products due to improve reliability, function or design or for other reasons, product specifications and data are subject to change without notice.

Taiwan VBsemi Electronics Co., Ltd., branches, agents, employees, and all persons acting on its or their representatives (collectively, the "Taiwan VBsemi"), assumes no responsibility for any errors, inaccuracies or incomplete data contained in the table or any other any disclosure of any information related to the product.(www.VBsemi.tw)

Taiwan VBsemi makes no guarantee, representation or warranty on the product for any particular purpose of any goods or continuous production. To the maximum extent permitted by applicable law on Taiwan VBsemi relinquished: (1) any application and all liability arising out of or use of any products; (2) any and all liability, including but not limited to special, consequential damages or incidental; (3) any and all implied warranties, including a particular purpose, non-infringement and merchantability guarantee.

Statement on certain types of applications are based on knowledge of the product is often used in a typical application of the general product VBsemi Taiwan demand that the Taiwan VBsemi of. Statement on whether the product is suitable for a particular application is non-binding. It is the customer's responsibility to verify specific product features in the products described in the specification is appropriate for use in a particular application. Parameter data sheets and technical specifications can be provided may vary depending on the application and performance over time. All operating parameters, including typical parameters must be made by customer's technical experts validated for each customer application. Product specifications do not expand or modify Taiwan VBsemi purchasing terms and conditions, including but not limited to warranty herein.

Unless expressly stated in writing, Taiwan VBsemi products are not intended for use in medical, life saving, or life sustaining applications or any other application. Wherein VBsemi product failure could lead to personal injury or death, use or sale of products used in Taiwan VBsemi such applications using client did not express their own risk. Contact your authorized Taiwan VBsemi people who are related to product design applications and other terms and conditions in writing.

The information provided in this document and the company's products without a license, express or implied, by estoppel or otherwise, to any intellectual property rights granted to the VBsemi act or document. Product names and trademarks referred to herein are trademarks of their respective representatives will be all.

Material Category Policy

Taiwan VBsemi Electronics Co., Ltd., hereby certify that all of the products are determined to be RoHS compliant and meets the definition of restrictions under Directive of the European Parliament 2011/65 / EU, 2011 Nian. 6. 8 Ri Yue restrict the use of certain hazardous substances in electrical and electronic equipment (EEE) - modification, unless otherwise specified as inconsistent.(www.VBsemi.tw)

Please note that some documents may still refer to Taiwan VBsemi RoHS Directive 2002/95 / EC. We confirm that all products identified as consistent with the Directive 2002/95 / EC European Directive 2011/65 /.

Taiwan VBsemi Electronics Co., Ltd. hereby certify that all of its products comply identified as halogen-free halogen-free standards required by the JEDEC JS709A. Please note that some Taiwanese VBsemi documents still refer to the definition of IEC 61249-2-21, and we are sure that all products conform to confirm compliance with IEC 61249-2-21 standard level JS709A.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for MOSFET category:

Click to view products by VBsemi Elec manufacturer:

Other Similar products are found below :

614233C 648584F MCH3443-TL-E MCH6422-TL-E FDPF9N50NZ FW216A-TL-2W FW231A-TL-E APT5010JVR NTNS3A92PZT5G IRF100S201 JANTX2N5237 2SK2464-TL-E 2SK3818-DL-E FCA20N60_F109 FDZ595PZ STD6600NT4G FSS804-TL-E 2SJ277-DL-E 2SK1691-DL-E 2SK2545(Q,T) D2294UK 405094E 423220D MCH6646-TL-E TPCC8103,L1Q(CM 367-8430-0972-503 VN1206L 424134F 026935X 051075F SBVS138LT1G 614234A 715780A NTNS3166NZT5G 751625C 873612G IRF7380TRHR IPS70R2K0CEAKMA1 RJK60S3DPP-E0#T2 RJK60S5DPK-M0#T0 APT5010JVFR APT12031JFLL APT12040JVR DMN3404LQ-7 NTE6400 JANTX2N6796U JANTX2N6784U JANTXV2N5416U4 SQM110N05-06L-GE3 SIHF35N60E-GE3