

NP180N055TUJ-VB Datasheet N-Channel 60 V (D-S) 175 °C MOSFET

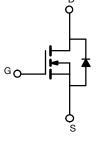
PRODUCT SUMMARY				
V _{DS} (V)	60			
$R_{DS(on)}$ (Ω) at V_{GS} = 10 V	0.00163			
I _D (A)	150			
Configuration	Single			
Package	TO-263-7L			

FEATURES

- Trench power MOSFET
- Package with low thermal resistance
- 100 % $\rm R_g$ and UIS tested







N-Channel MOSFET

ABSOLUTE MAXIMUM RATINGS (T _C = 25 °C, unless otherwise noted)					
PARAMETER		SYMBOL	LIMIT	UNIT	
Drain-source voltage		V _{DS}	60	V	
Gate-source voltage		V _{GS}	± 20		
Continuous drain current	T _C = 25 °C	- I _D -	150		
	T _C = 125 °C		120 ^a		
Continuous source current (diode conduction) ^a		I _S	120	А	
Pulsed drain current ^b		I _{DM}	400		
Single pulse avalanche current	L = 0.1 mH	I _{AS}	75		
Single pulse avalanche energy		E _{AS}	281	mJ	
Maximum power dissipation ^b	T _C = 25 °C	D	375	W	
	T _C = 125 °C	PD	125	vv	
Operating junction and storage temperature rang	le	T _J , T _{stg}	-55 to +175	°C	

THERMAL RESISTANCE RATINGS				
PARAMETER		SYMBOL	LIMIT	UNIT
Junction-to-ambient	PCB mount ^c	R _{thJA}	40	°C/W
Junction-to-case (drain)	on-to-case (drain)		0.4	0/10

Notes

a. Package limited

b. Pulse test; pulse width $\leq 300~\mu s,~duty~cycle \leq 2~\%$

c. When mounted on 1" square PCB (FR4 material)

$\begin{split} \textbf{SPECIFICATIONS (Γ_{0} = 25 $^{\circ}$C, unless otherwise noted)} \\ \hline PARAMETER $Vallow Va									
	SPECIFICATIONS ($T_c = 25 \text{ °C}$, unless otherwise noted)								
$\begin{array}{ c c c c c } \hline Drain-source breakdown voltage V_{DS} & $V_{OS} = 0 V, $I_D = 250 μA$ & 60 & $-$ & $-$ & V \\ \hline Gate-source threshold voltage $V_{GS(h)}$ & $V_{DS} = V_{GS, $I_D = 250 μA$ & 2.5 & 3.0 & 3.5 \\ \hline Gate-source leakage I_{GSS} & $V_{DS} = 0 V, $V_{GS} = $20 V$ & $-$ & $-$ & \pm100$ & nA$ \\ \hline Product $V_{GS} = 0 V$ & $V_{DS} = 60 V$ & $-$ & $-$ & \pm100$ & nA$ \\ \hline V_{GS} = 0 V$ & $V_{DS} = 60 V$ & $-$ & $-$ & $-$ & 50 & μA$ \\ \hline V_{OS} = 0 V$ & $V_{DS} = 60 V$ & $-$ & $-$ & $-$ & 2.50 & μA$ \\ \hline Product $V_{OS} = 0 V$ & $V_{DS} = 60 V$ & $-$ & $-$ & $-$ & 2.50 & μA$ \\ \hline Product $V_{OS} = 0 V$ & $V_{DS} = 60 V$ & $-$ & $-$ & $-$ & 2.50 & μA$ \\ \hline Product $V_{OS} = 0 V$ & $V_{DS} = 50 V$ & 120 & $-$ & $-$ & $-$ & A & $V_{OS} = 10 V$ & $V_{DS} = 50 V$ & 120 & $-$ & $-$ & A & $V_{OS} = 10 V$ & $I_D = 30 A$ & $-$ & 0.00163 & $-$ & $V_{OS} = 10 V$ & $I_D = 30 A$ & $-$ & 0.00360 & $-$ & $V_{OS} = 10 V$ & $I_D = 30 A$ & $-$ & 0.00360 & $-$ & $V_{OS} = 10 V$ & $I_D = 30 A$ & $-$ & 0.00360 & $-$ & $V_{OS} = 10 V$ & $I_D = 30 A$ & $-$ & 142 & $-$ & S & D & $V_{OS} = 10 V$ & $I_D = 30 A$ & $-$ & 142 & $-$ & S & D & $V_{OS} = 10 V$ & $V_{DS} = 25 V$, $f = 1 MHz$ & $-$ & 160 & 200 & $-$ & 160 & 200 & $-$ & 160 & 200 & $-$ & 123 & 185 & $-$ & 160 $	PARAMETER	SYMBOL	TES	T CONDITIONS	MIN.	TYP.	MAX.	UNIT	
$ \begin{array}{ c c c c c } \hline \mbox{Gate-source threshold voltage} & V_{GS}(m) & V_{GS} = V_{GS}, \mbox{I}_{D} = 250 \ \mu A & 2.6 & 3.0 & 3.6 \\ \hline \mbox{Gate-source leakage} & l_{GSS} & V_{DS} = 0 \ V, \ V_{GS} = 250 \ \mu & - & - & \pm 100 & nA \\ \hline \mbox{Max} & V_{DS} = 0 \ V, \ V_{DS} = 60 \ V, \ T_{J} = 125 \ C & - & - & 50 & \mu A \\ \hline \mbox{V} & V_{OS} = 0 \ V & V_{DS} = 60 \ V, \ T_{J} = 125 \ C & - & - & 50 & \mu A \\ \hline \mbox{V} & V_{OS} = 0 \ V & V_{DS} = 60 \ V, \ T_{J} = 125 \ C & - & - & 50 & \mu A \\ \hline \mbox{V} & V_{OS} = 10 \ V & V_{DS} = 50 \ V, \ T_{J} = 125 \ C & - & - & 250 & \mu A \\ \hline \mbox{On-state drain current}^{a} & l_{D(m)} & V_{OS} = 10 \ V & V_{DS} = 50 \ V, \ T_{J} = 125 \ C & - & 0.00163 & - & \\ \hline \mbox{V} & V_{OS} = 10 \ V & \ V_{DS} = 10 \ V & \ I_{D} = 30 \ A, \ T_{J} = 125 \ C & - & 0.00300 & - & \\ \hline \mbox{Parmin} & V_{OS} = 10 \ V & \ I_{D} = 30 \ A, \ T_{J} = 125 \ C & - & 0.00300 & - & \\ \hline \mbox{Parmin} & V_{OS} = 10 \ V & \ I_{D} = 30 \ A, \ T_{J} = 175 \ C & - & 0.00300 & - & \\ \hline \mbox{Parmin} & V_{OS} = 10 \ V & \ I_{D} = 30 \ A, \ T_{J} = 175 \ C & - & 0.00300 & - & \\ \hline \mbox{Parmin} & V_{OS} = 10 \ V \ V_{OS} = 10 \ V, \ I_{D} = 30 \ A, \ T_{J} = 175 \ C & - & 0.00300 \ - & \\ \hline \mbox{Parmin} & V_{OS} = 10 \ V, \ I_{D} = 30 \ A, \ T_{J} = 175 \ C & - & 0.00300 \ - & \\ \hline \mbox{Parmin} & V_{OS} = 10 \ V, \ I_{D} = 30 \ A, \ T_{J} = 175 \ C & - & 0.00300 \ - & \\ \hline \mbox{Parmin} & V_{OS} = 10 \ V, \ V_{DS} = 30 \ V, \ I_{D} = 50 \ A, \ V_{OS} = 10 \ V, \ I_{D} = 30 \ A, \ I_{D} = 50 \ A \ A \ A \ A \ A \ A \ A \ A \ A \ $	Static								
$ \begin{array}{c c c c c c } \hline \begin{tabular}{ c c c c c c } \hline \begin{tabular}{ c c c c c c } \hline \begin{tabular}{ c c c c c c } \hline \begin{tabular}{ c c c c c c c } \hline \begin{tabular}{ c c c c c c c } \hline \begin{tabular}{ c c c c c c c } \hline \begin{tabular}{ c c c c c c c } \hline \begin{tabular}{ c c c c c c c c } \hline \begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	Drain-source breakdown voltage	V_{DS}	$V_{GS} = 0 V, I_D = 250 \mu A$		60	-	-	V	
$ \begin{array}{ c c c c c } \mbox{Zero gate voltage drain current} & $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $$	Gate-source threshold voltage	V _{GS(th)}	V _{DS} =	: V _{GS} , I _D = 250 μA	2.5	3.0	3.5	v	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Gate-source leakage	I _{GSS}	$V_{DS} = 0 V, V_{GS} = \pm 20 V$		-	-	± 100	nA	
$ \begin{array}{ c c c c c c } \hline \begin{tabular}{ c c c c c c } \hline \begin{tabular}{ c c c c c c c } \hline \begin{tabular}{ c c c c c c c c } \hline \begin{tabular}{ c c c c c c c c } \hline \begin{tabular}{ c c c c c c c c c c c c c c c c c c c$		I _{DSS}	$V_{GS} = 0 V$	$V_{DS} = 60 V$	-	-	1	ΠА	
$ \begin{array}{ c c c c c } \hline \mbox{On-state drain current}^a & l_{D(on)} & V_{GS}^a = 10 \ V & V_{DS}^a \ge 5 \ V & 120 & - & - & A \\ \hline \mbox{V}_{GS} = 10 \ V & l_D = 30 \ A, T_J = 125 \ C & - & 0.00300 & - & \\ \hline \mbox{V}_{GS} = 10 \ V & l_D = 30 \ A, T_J = 125 \ C & - & 0.00300 & - & \\ \hline \mbox{V}_{GS} = 10 \ V & l_D = 30 \ A, T_J = 125 \ C & - & 0.00300 & - & \\ \hline \mbox{V}_{GS} = 10 \ V & l_D = 30 \ A, T_J = 175 \ C & - & 0.00300 & - & \\ \hline \mbox{V}_{GS} = 10 \ V & l_D = 30 \ A, T_J = 175 \ C & - & 0.00300 & - & \\ \hline \mbox{V}_{GS} = 10 \ V & l_D = 30 \ A, T_J = 175 \ C & - & 0.00300 & - & \\ \hline \mbox{V}_{GS} = 10 \ V & l_D = 30 \ A, T_J = 175 \ C & - & 0.00300 & - & \\ \hline \mbox{V}_{DS} = 15 \ V, \ I_D = 30 \ A, T_J = 175 \ C & - & 0.00300 & - & \\ \hline \mbox{V}_{DS} = 10 \ V & I_D = 30 \ A, T_J = 175 \ C & - & 0.00300 & - & \\ \hline \mbox{V}_{DS} = 10 \ V & I_D = 30 \ A, T_J = 175 \ C & - & 0.00300 & - & \\ \hline \mbox{V}_{DS} = 10 \ V & V_{DS} = 10 \ V \ V_{DS} = 25 \ V, \ f = 1 \ MHz & - & 142 \ - & S \\ \hline \mbox{V}_{DS} = 30 \ V, \ I_D = 50 \ A, \ V_{GS} = 10 \ V \ V_{DS} = 30 \ V, \ I_D = 50 \ A, \ V_{DS} = 30 \ V, \ I_D = 50 \ A, \ V_{DS} = 30 \ V, \ I_D = 50 \ A, \ V_{DS} = 10 \ V \ V_{DS} = 30 \ V, \ I_D = 50 \ A, \ V_{DS} = 10 \ V \ V_{DS} = 30 \ V, \ I_D = 50 \ A, \ V_{DS} = 10 \ V \ V_{DS} = 30 \ V, \ I_D = 50 \ A, \ V_{DS} = 10 \ V \ V_{DS} = 30 \ V, \ I_D = 50 \ A, \ V_{DS} = 10 \ V \ V_{DS} = 10 \ V \ V_{DS} = 30 \ V, \ I_D = 50 \ A, \ V_{DS} = 10 \ V \ V_{DS} = 10 \ V, \ V_{DS} = 10 \ V \ V_{DS} $	Zero gate voltage drain current		$V_{GS} = 0 V$	V_{DS} = 60 V, T_J = 125 °C	-	-	50	μΛ	
$ \begin{array}{ c c c c c } \hline Part Par$			$V_{GS} = 0 V$	$V_{DS}=60~V,~T_J=175~^\circ C$	-	-	250	μA	
$ \begin{array}{ c c c c c c c } \hline Prain-source on-state resistance $^{\circ}$ & $$P_{DS(on)$}$ & $$V_{GS} = 10 V$ & $I_{D} = 30 \mbox{, } T_J = 125 $^{\circ}$C$ & $-$$ & 0.00300 & $-$$ & 0.00300 & $-$$ & $$V_{GS} = 10 V$ & $I_{D} = 30 \mbox{, } T_J = 175 $^{\circ}$C$ & $-$$ & 0.00300 & $-$$ & $$0.00300$ & $-$$ & $$$0.00300$ & $-$$ & $$$0.00300$ & $-$$ & $$$0.00300$ & $-$$ & $$$$0.00300$ & $-$$ & $$$$0.00300$ & $-$$ & $$$$0.00300$ & $-$$ & $$$$$0.00300$ & $-$$ & $$$$$0.00300$ & $-$$ & $$$$$$0.00300$ & $-$$ & $$$$$$$$0.00300$ & $-$$ & $$$$$$$$$$0.00300$ & $-$$ & $$$$$$$$$$$$$$$$$$$$$$$$$$$$	On-state drain current ^a	I _{D(on)}	V_{GS} = 10 V	$V_{DS} \ge 5 V$	120	-	-	А	
$ \begin{array}{ c c c c c } \hline V_{GS} = 10 \ V & _{D} = 30 \ A, \ T_{J} = 175 \ ^{\circ}{\rm C} & - & 0.00360 & - \\ \hline \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$			$V_{GS} = 10 V$	I _D = 30 A	-	0.00163	-	Ω	
$ \begin{array}{c c c c c c c c c } \hline Forward transconductance b & g_{fs} & V_{DS} = 15 V, I_{D} = 30 A & - & 142 & - & S \\ \hline \begin{tabular}{ c c c c c c } \hline \begin{tabular}{ c c c c } \hline \begin{tabular}{ c c } \hline \hline \begin{tabular}{ c c } \hline \hline \begin{tabular}{ c c } \hline \begin{tabular}{ c c } \hline \hline \begin{tabular}{ c c c } \hline \hline \begin{tabular}{ c c } \hline \hline \begin{tabular}{ c c } \hline \hline \begin{tabular}{ c c } \hline \hline tabul$	Drain-source on-state resistance ^a	R _{DS(on)}	V_{GS} = 10 V	$I_D = 30 \text{ A}, T_J = 125 \ ^\circ\text{C}$	-	0.00300	-		
$ \begin{array}{ c c c c } \hline \textbf{Dynamic b} & & & & & & & & & & & & & & & & & & $			V_{GS} = 10 V	$I_D = 30 \text{ A}, \text{ T}_J = 175 ^\circ\text{C}$	-	0.00360	-		
$ \begin{array}{c c c c c c c } \hline \mbox{lnput capacitance} & \mbox{C}_{168} & \mbox{V}_{GS} = 0 \ V & \mbox{V}_{GS} = 25 \ V, \mbox{f} = 1 \ MHz & \mbox{MHz} & - & \mbox{9100} & \mbox{11 900} & \mbox{9100} & \mbox{11 900} & \mbox{9100} & \mbox{11 900} & \mbox{9100} & \mbox{9100}$	Forward transconductance ^b	9 _{fs}	$V_{DS} = 15 \text{ V}, \text{ I}_{D} = 30 \text{ A}$		-	142	-	S	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Dynamic ^b							-	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Input capacitance	C _{iss}		V _{DS} = 25 V, f = 1 MHz	-	9100	11 900	pF	
Total gate charge ° Q_g $V_{GS} = 10 \text{ V}$ $V_{DS} = 30 \text{ V}, I_D = 50 \text{ A}$ $ 123$ 185 nC Gate-source charge ° Q_{gd} $V_{GS} = 10 \text{ V}$ $V_{DS} = 30 \text{ V}, I_D = 50 \text{ A}$ $ 40$ $ nC$ Gate-drain charge ° Q_{gd} $P_{Gate-drain charge ° Q_{gd} 19 nC Gate resistance R_g f = 1 \text{ MHz} 4 8.6 13 \Omega Turn-on delay time ° t_{d(on)} V_{DD} = 30 \text{ V}, R_L = 0.6 \Omega 26 40 - Fail time ° t_r t_{d(off)} t_D = 50 \text{ A}, V_{GS} = 10 \text{ V}, R_g = 1 \Omega 26 40 - Fail time ° t_f t_D = 50 \text{ A}, V_{GS} = 0 \Omega 25 40 240 A Forward voltage V_{SD} I_F = 50 \text{ A}, V_{GS} = 0 \text{ V} 0.84 1.5 V Body diode reverse recovery time t_r I_F = 25 \text{ A}, di/dt = 100 \text{ A}/\mu -$	Output capacitance	C _{oss}	$V_{GS} = 0 V$		-	3550	4700		
$ \begin{array}{ c c c c } \hline Gate-source charge ^{\circ} & Q_{gs} & $V_{GS} = 10 \ V$ $V_{DS} = 30 \ V, \ I_{D} = 50 \ A$ $$I$ $$I$ V $V_{DS} = 30 \ V, \ I_{D} = 50 \ A$ $$I$ $$I$ $$I$ $$I$ $$I$ $$I$ $$I$$	Reverse transfer capacitance	C _{rss}			-	160	220		
$ \begin{array}{ c c c c c } \hline Gate - drain charge ^{\circ} & Q_{gd} & & & & & & & & & & & & & & & & & & &$	Total gate charge ^c	Qg			-	123	185		
$ \begin{split} & \begin{array}{c} \mbox{Gate resistance} & \mbox{R}_g & \mbox{f} = 1 \mbox{ MHz} & \mbox{4} & \mbox{8.6} & \mbox{13} & \mbox{\Omega} \\ & \mbox{Turn-on delay time}^{\circ} & \mbox{t}_{d(on)} & \\ & \mbox{Rise time}^{\circ} & \mbox{t}_r & \\ & \mbox{Turn-off delay time}^{\circ} & \mbox{t}_r & \\ & \mbox{Turn-off delay time}^{\circ} & \mbox{t}_r & \\ & \mbox{Turn-off delay time}^{\circ} & \mbox{t}_{d(off)} & \\ & \mbox{Fall time}^{\circ} & \mbox{t}_r & \\ & \mbox{Fall time}^{\circ} & \mbox{t}_r & \\ & \mbox{Fall time}^{\circ} & \mbox{t}_r & \\ & \mbox{Source-Drain Diode Ratings and Characteristics}^{b} & \\ & \mbox{Forward voltage} & \mbox{Ism} & \mbox{Ism} & \\ & \mbox{Forward voltage} & \mbox{V}_{SD} & \mbox{I}_F = 50 \mbox{ A, V}_{GS} = 0 \mbox{ V} & \mbox{-} & \mbox{0.84} & \mbox{1.5} & \mbox{V} \\ & \mbox{Body diode reverse recovery time} & \mbox{t}_{rr} & \\ & \mbox{Body diode reverse recovery charge} & \mbox{Q}_{rr} & \\ & \mbox{Reverse recovery rise time} & \mbox{t}_a & \\ & \mbox{Reverse recovery rise time} & \mbox{t}_b & \\ & \mbox{Forward time} & \mbox{t}_a & \\ & \mbox{Forward time} & \mbox{t}_a & \\ & \mbox{Reverse recovery rise time} & \mbox{t}_b & \\ & \mbox{Forward time} & \mbox{t}_a & \\ & \mbox{Forward time} & \mbox$	Gate-source charge ^c	Q _{gs}	V_{GS} = 10 V	$V_{DS} = 30 \text{ V}, \text{ I}_{D} = 50 \text{ A}$	-	40	-	nC	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Gate-drain charge ^c	Q_{gd}			-	19	-		
Rise time °trVDD = 30 V, RL = 0.6 Ω -2640nsTurn-off delay time °td(off)Fall time °tfFall time °tfSource-Drain Diode Ratings and Characteristics bPulsed current aISMForward voltageVSDIsd y diode reverse recovery timetrrBody diode reverse recovery timetrrReverse recovery fall timetaReverse recovery rise timetaTurn-off delay time °taPulsed current ataIsd y diode reverse recovery timetrrBody diode reverse recovery timetrrIsd y diode reverse recovery timetaTurn-off timetaReverse recovery rise timetaTurn-off delay timetaTurn-off delay time (ta)taTurn-off delay time (ta)ta<	Gate resistance	R _g	f = 1 MHz		4	8.6	13	Ω	
$ \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 ^c	t _{d(on)}				48	75	- ns	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Rise time ^c	tr			-	26	40		
Source-Drain Diode Ratings and Characteristics bPulsed current a I_{SM} 240AForward voltage V_{SD} $I_F = 50 \text{ A}, V_{GS} = 0 \text{ V}$ -0.841.5VBody diode reverse recovery time t_{rr} $I_F = 25 \text{ A}, di/dt = 100 \text{ A/µs}$ -100200nsReverse recovery fall time t_a $I_F = 25 \text{ A}, di/dt = 100 \text{ A/µs}$ -48Reverse recovery rise time t_b -53	Turn-off delay time ^c	t _{d(off)}			-	105	160		
Pulsed current aISM240AForward voltage V_{SD} $I_F = 50 \text{ A}, V_{GS} = 0 \text{ V}$ -0.841.5VBody diode reverse recovery time t_{rr} Body diode reverse recovery charge Q_{rr} Reverse recovery fall time t_a Reverse recovery rise time t_b	Fall time ^c	t _f			-	25	40		
Forward voltage V_{SD} $I_F = 50 \text{ A}, V_{GS} = 0 \text{ V}$ -0.841.5VBody diode reverse recovery time t_{rr} Body diode reverse recovery charge Q_{rr} Reverse recovery fall time t_a Reverse recovery rise time t_b	Source-Drain Diode Ratings and Chara	cteristics ^b						-	
Body diode reverse recovery time t_{rr} Body diode reverse recovery charge Q_{rr} Reverse recovery fall time t_a Reverse recovery rise time t_b -100243500-48-53-53	Pulsed current ^a	I _{SM}			-	-	240	А	
Body diode reverse recovery charge Q_{rr} Reverse recovery fall time t_a Reverse recovery rise time t_b IF = 25 A, di/dt = 100 A/µs $-$ 243500IF = 25 A, di/dt = 100 A/µsIF = 25 A, di/dt = 100 A/µs	Forward voltage	V_{SD}	I _F = 50 A, V _{GS} = 0 V		-	0.84	1.5	V	
Reverse recovery fall time t_a Reverse recovery rise time t_b	Body diode reverse recovery time	t _{rr}	- I _F = 25 A, di/dt = 100 A/μs		-	100	200	ns	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Body diode reverse recovery charge	Q _{rr}			-	243	500	nC	
Reverse recovery rise time tb - 53 -	Reverse recovery fall time	t _a			-	48	-	ne	
Body diode peak reverse recovery current I _{RM(REC)} - -4.6	Reverse recovery rise time	t _b			-	53	-	115	
	Body diode peak reverse recovery current	I _{RM(REC)}			-	-4.6	-	А	

Notes

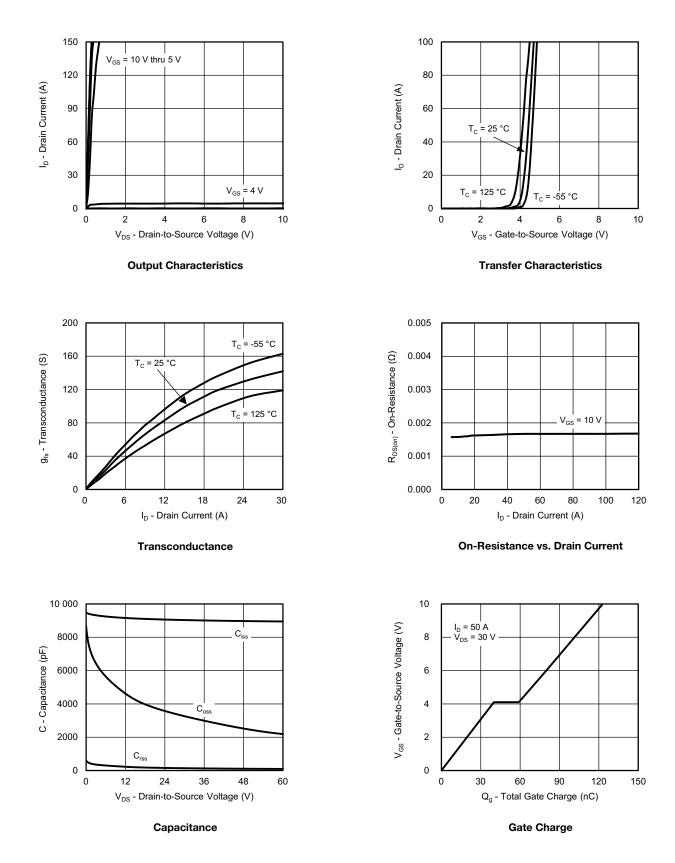
a. Pulse test; pulse width \leq 300 µs, duty cycle \leq 2 % b. Guaranteed by design, not subject to production testing c. Independent of operating temperature

Semi

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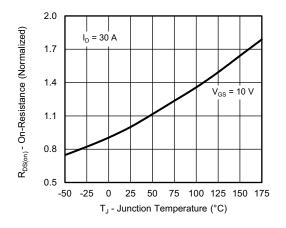


TYPICAL CHARACTERISTICS ($T_A = 25 \text{ °C}$, unless otherwise noted)

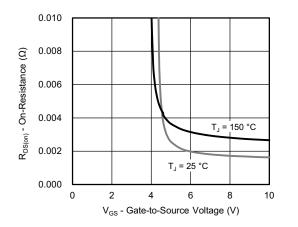




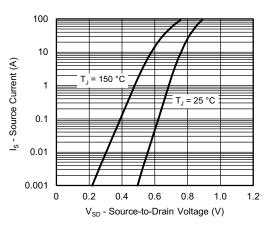
TYPICAL CHARACTERISTICS ($T_A = 25 \text{ °C}$, unless otherwise noted)



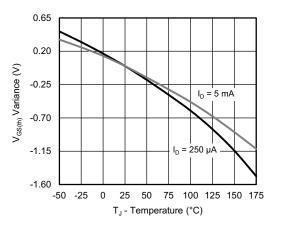
On-Resistance vs. Junction Temperature

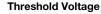


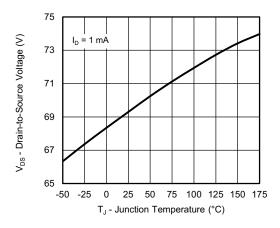
On-Resistance vs. Gate-to-Source Voltage



Source Drain Diode Forward Voltage





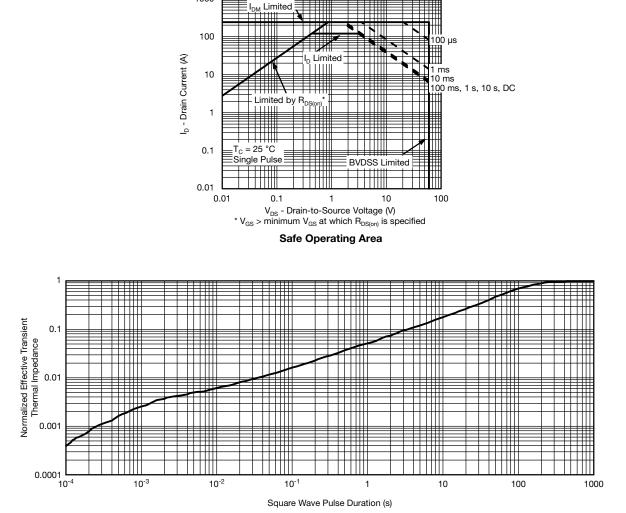


Drain Source Breakdown vs. Junction Temperature



THERMAL RATINGS ($T_A = 25 \text{ °C}$, unless otherwise noted)

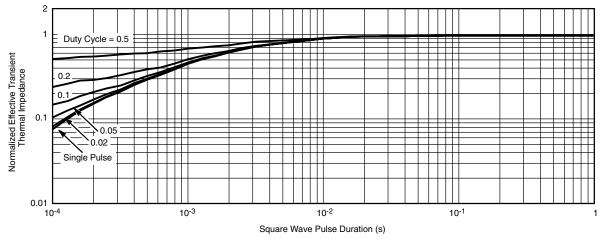
1000



Normalized Thermal Transient Impedance, Junction-to-Ambient



THERMAL RATINGS ($T_A = 25 \text{ °C}$, unless otherwise noted)



Normalized Thermal Transient Impedance, Junction-to-Case

Note

- The characteristics shown in the two graphs
 - Normalized Transient Thermal Impedance Junction-to-Ambient (25 °C)
- Normalized Transient Thermal Impedance Junction-to-Case (25 °C)

are given for general guidelines only to enable the user to get a "ball park" indication of part capabilities. The data are extracted from single pulse transient thermal impedance characteristics which are developed from empirical measurements. The latter is valid for the part mounted on printed circuit board - FR4, size 1" x 1" x 0.062", double sided with 2 oz. copper, 100 % on both sides. The part capabilities can widely vary depending on actual application parameters and operating conditions



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