- Low On-Resistance
- Excellent Gate Charge x $R_{DS(ON)}$ Product (FOM)
- Pb-Free Lead Plating
- RoHS and Halogen-Free Compliant
- 100% UIS Tested, 100% R_g Tested

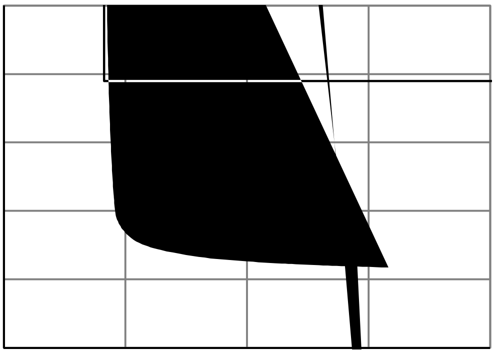
Product Summary

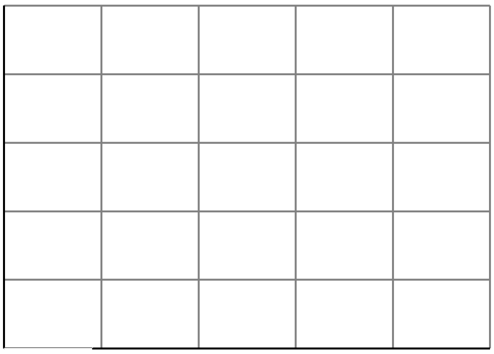
	Value	Unit
	-100	V
	-2.0	V
	-30	A
	37	m
$R_{DS(ON)\_Typ}$	50	m

Ordering Information

Device	Package	# of Pins	Marking	M	M	oÖ M

Drain-to-Source -Ď ƭ ƴ M =				
(1)	T_C = 25°C	I_D	-30	A
	T_C = 100°C		-19	
Avalanche Current(3)			-27	
Avalanche Energy(3)			109	
Power Dissipation(4)	T_C = 25°C	P_D	96	W
	T_C = 100°C		38	
Junction & Storage Temperature Range			-55 to 150	





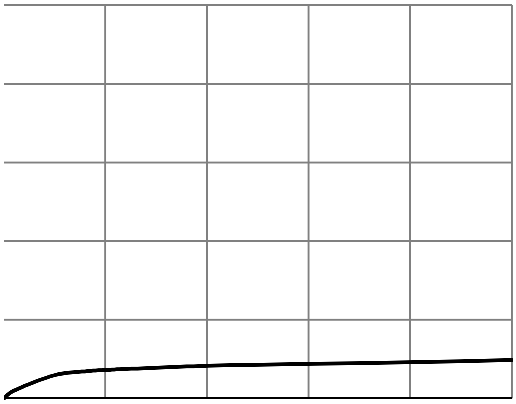
Electrical Characteristics (@ T_J = 25°C unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
STATIC PARAMETERS						
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	I_D = -250 A, V_{GS} = 0V	-100			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS} = -80V, V_{GS} = 0V			-1.0	A
		T_J = 55°C			-5.0	
Gate-Body Leakage Current	I_{GSS}	V_{DS} = 0V, V_{GS} = ±20V			±100	nA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS} = V_{GS}, I_D = -250 A	-1.0	-2.0	-3.0	V
Static Drain-Source ON-Resistance	$R_{DS(ON)}$	V_{GS} = -10V, I_D = -15A		37	50	m
		V_{GS} = -4.5V, I_D = -10A		50	66	m
Forward Transconductance	g_{FS}	V_{DS} = -5V, I_D = -15A		30		S
Diode Forward Voltage	V_{SD}	I_S = -1A, V_{GS} = 0V		-0.7	-1.0	V
Diode Continuous Current	I_S	T_C = 25°C			-96	A
DYNAMIC PARAMETERS (5)						
Input Capacitance	C_{iss}	V_{GS} = 0V, V_{DS} = -50V, f = 1MHz		1412		pF
Output Capacitance	C_{oss}			222		pF
Reverse Transfer Capacitance	C_{rss}			2.6		pF
Gate Resistance	R_g	V_{GS} = 0V, V_{DS}= 0V, f = 1MHz		10.2		
SWITCHING PARAMETERS (5)						
Total Gate Charge (@ V_{GS} = -10V)	Q_g	V_{GS} = 0 to -10V V_{DS} = -50V, I_D = -15A		20		nC
Total Gate Charge (@ V_{GS} = -6.0V)	Q_g			12.6		nC
Gate Source Charge	Q_{gs}			6.4		nC
Gate Drain Charge	Q_{gd}			3.3		nC
Turn-On DelayTime	$t_{D(on)}$	V_{GS} = -10V, V_{DS} = -50V R_L = 3.3 , R_{GEN} = 6		10.7		ns
Turn-On Rise Time	t_r			56		ns
Turn-Off DelayTime	$t_{D(off)}$			45		ns
Turn-Off Fall Time	t_f			81		ns
Body Diode Reverse Recovery Time	t_{rr}	I_F = -15A, dI_F/dt = -100A/ s		51		ns
Body Diode Reverse Recovery Charge	Q_{rr}	I_F = -15A, dI_F/dt = -100A/ s		130		nC

Thermal Performance

Parameter	Symbol	Typ.	Max.	Unit
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Typical Electrical & Thermal Characteristics



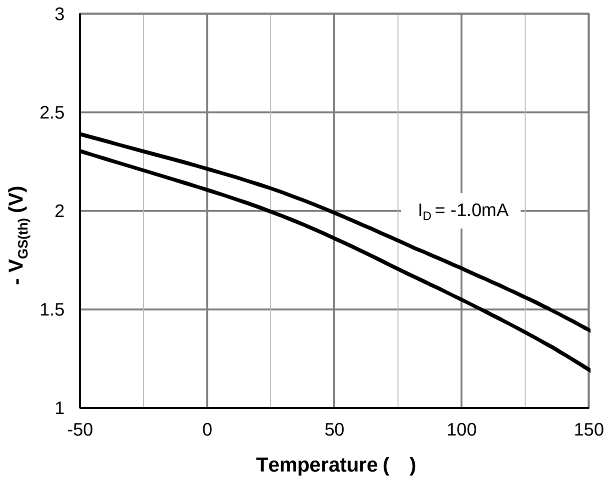
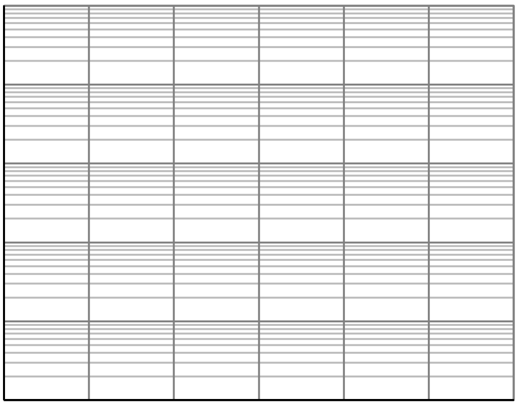


Figure 5: $V_{GS(th)}$ vs. Junction Temperature

Typical Electrical & Thermal Characteristics



Typical Electrical & Thermal Characteristics

TO-252-3L Package Information