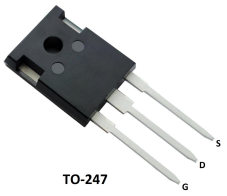
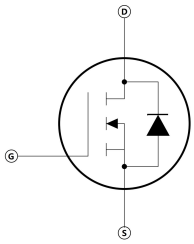
Features

- 100% avalanche tested
- Avalanche ruggedness
- Very low intrinsic capacitances
- High speed switching
- Very low on-resistance





Applications

- UPS
- Switching applications

Electrical ratings

Absolute maximum ratings			
Parameter	**Symbol**	**Value**	**Unit**
Drain-source voltage (V_{GS} = 0)	V_{DS}	1700	V
Transient Gate- source voltage	V_{GSM}	± 30	
Continuous Gate- source voltage(DC)	V_{GSS}	± 20	
Drain current (continuous) at T_C = 25 °C	I_D	5	A
Drain current (continuous) at T_c = 100 °C		3	
Drain current (pulsed)	I_{DM}	12	
Avalanche current, repetitive or not-repetitive (pulse width limited by T_J max)	I_{AR}	8	A
Single pulse avalanche energy (starting T_J = 25 °C, I_D = I_{AR}, V_{DD} = 50 V)	E_{AS}	800	mJ
Total dissipation at T_C = 25 °C	P_{TOT}	337	W
Operating junction temperature	T_J	-55 to 150	℃
Storage temperature	T_{stg}		
Maximum lead temperature for soldering purpose	T_L	300	℃

Electrical Characteristics (Tvj = 25°C unless otherwise specified)

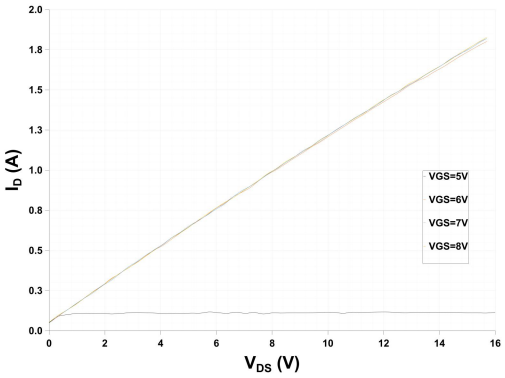
On /off states						
Parameter	**Symbol**	**Test conditions**	**Min**	**Typ**	**Max**	**Unit**
Drain-source breakdown voltage	$V_{(BR)DSS}$	I_D = 1 mA, V_{GS} = 0	1700	-	-	V
Zero gate voltage drain current (V_{GS} = 0)	I_{DSS}	V_{DS} = Max rating	-	-	10	μA

Gate-body leakage current (V_{DS} = 0)	I_{GSS}	V_{GS} = ±20 V	-	-	± 100	nA
Gate threshold voltage	$V_{GS(th)}$	V_{DS} = V_{GS}, I_D = 250 μA	3	4	5	V
Static drain-source on resistance	$R_{DS(on)}$	V_{GS} = 10V, I_D = 1A	-	8.0	9.0	Ω
Transconductance	Gfs	V_{DS} = 60V, I_D = 5A	-	6.2	-	S
Dynamic						
Parameter	**Symbol**	**Test conditions**	**Min**	**Typ**	**Max**	**Unit**
Input capacitance	C_{iss}	V_{DS}=100V,f=1MHz, V_{GS}=0V	-	790	-	pF
Output capacitance	C_{oss}		-	101	-	
Reverse transfer capacitance	C_{rss}		-	14	-	
Total gate charge	Q_g	V_{DD}=1360V,I_D=2.5A V_{GS}=10V	-	49.8	-	nC
Gate-source charge	Q_{gs}		-	4	-	
Gate-drain charge	Q_{gd}		-	25.8	-	
Switching times						
Parameter	**Symbol**	**Test conditions**	**Min**	**Typ**	**Max**	**Unit**
Turn-on delay time	$t_{d(on)}$	V_{DD} = 1360V, I_D = 2.5A, R_G = 25 Ω, V_{GS} = 10 V	-	49.3	-	ns
Rise time	t_r		-	24.3	-	
Turn-off-delay time	$t_{d(off)}$		-	79.1	-	
Fall time	t_f		-	24.3	-	
Source drain diode						
Parameter	**Symbol**	**Test conditions**	**Min**	**Typ**	**Max**	**Unit**
Source-drain current	I_{SD}		-	5	-	A
Source-drain current (pulsed)	I_{SDM}		-	11	-	
Forward on voltage	V_{SD}	I_{SD}= 5 A, V_{GS}= 0	-	0.9	-	V
Reverse recovery time	t_{rr}	I_{SD}= 5A, -di/dt= 100A/μs V_{DD}= 60 V	-	2.38	-	μs
Reverse recovery charge	Q_{rr}		-	7.6	-	μC

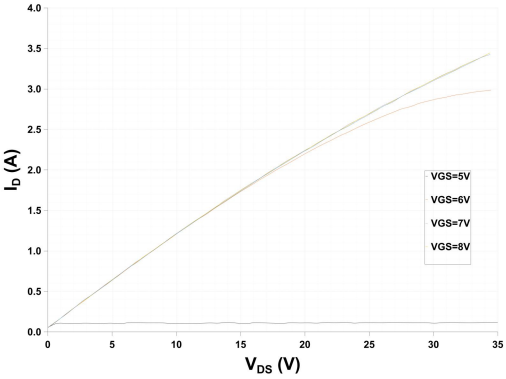
Thermal data			
Parameter	**Symbol**	**Value**	**Unit**
Thermal resistance junction-case max	$R_{thj\text{-}case}$	0.37	℃/W
Thermal resistance junction-ambient max	$R_{thj\text{-}amb}$	30.64	

Electrical characteristics

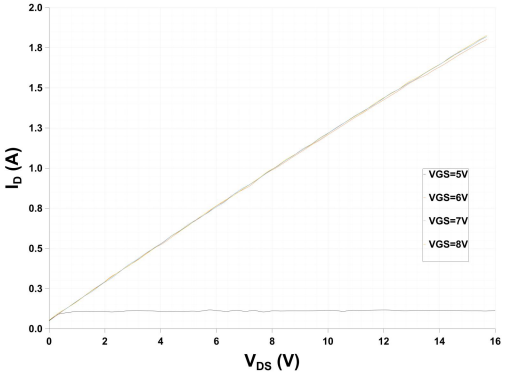
On-Region Characteristics@25℃



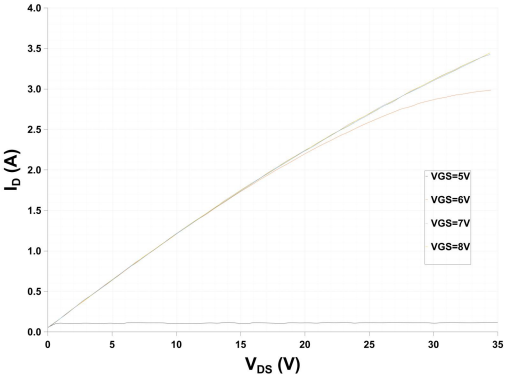
Extended On-Region Characteristics@25℃



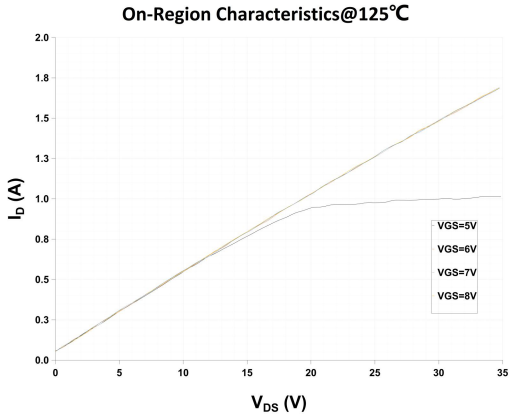
On-Region Characteristics@25℃



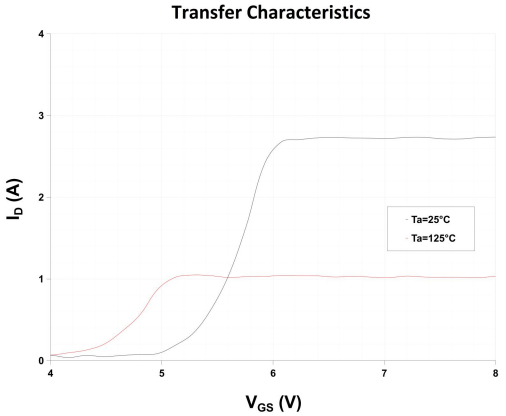
Extended On-Region Characteristics@25℃



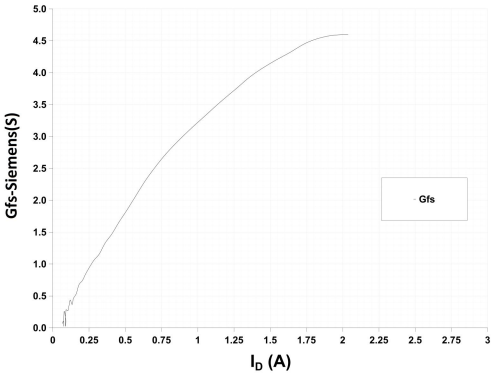
On-Region Characteristics@125℃



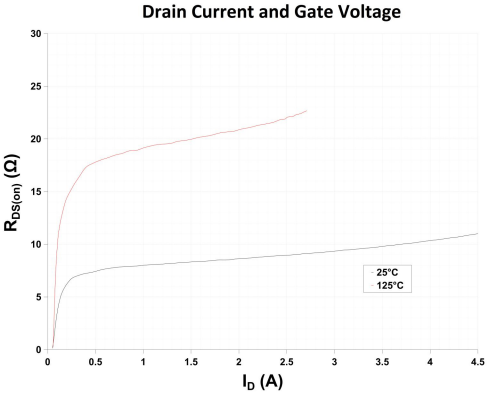
Transfer Characteristics



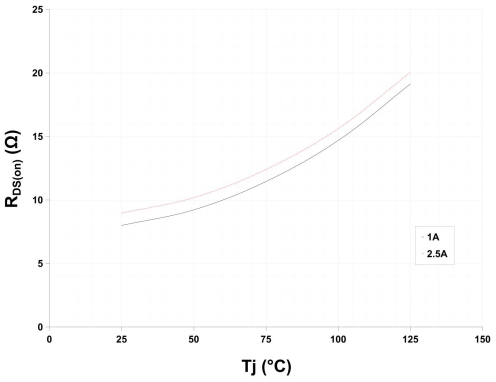
Transconductance



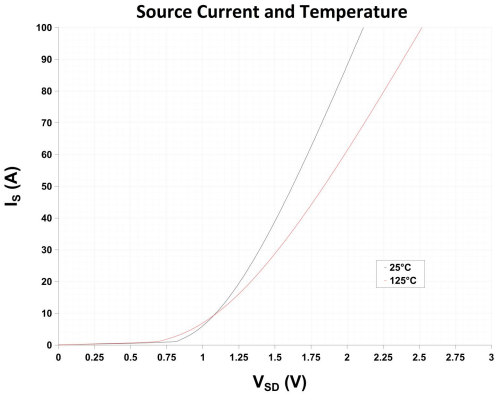
On-Resistance Variation vs Drain Current and Gate Voltage



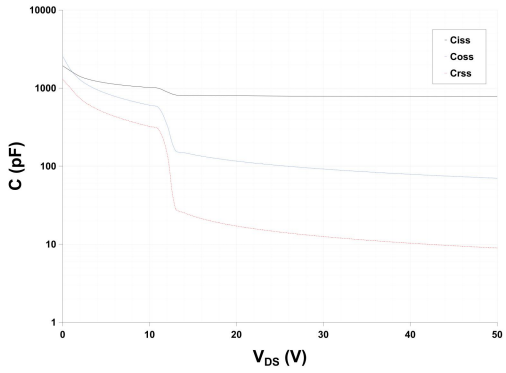
On-Resistance Variation vs Temperature



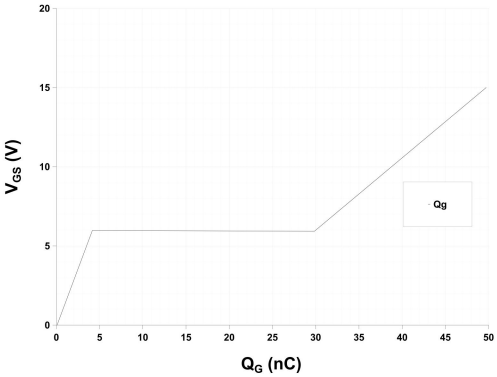
Body Diode Forward Voltage Variation with Source Current and Temperature

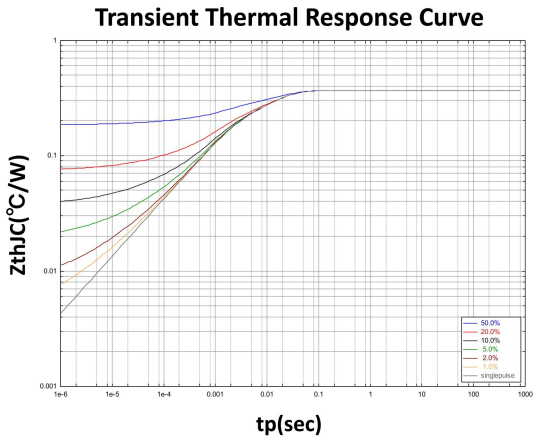


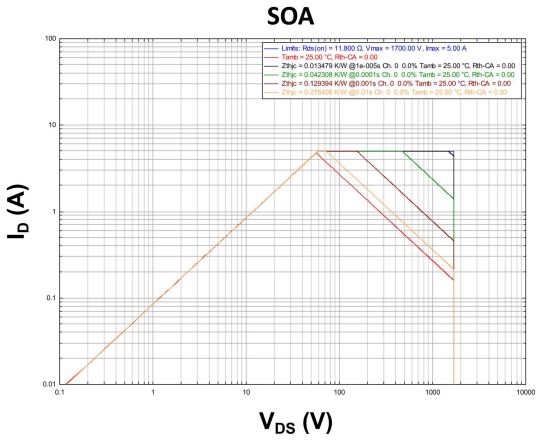
Capacitance

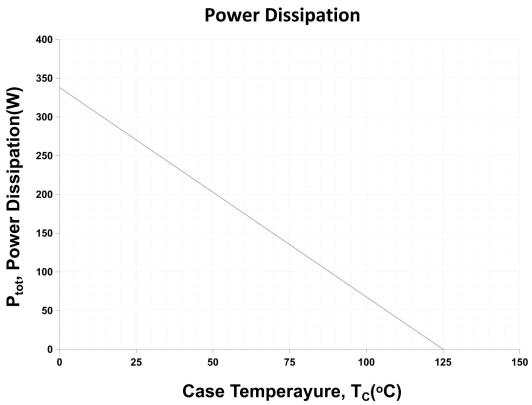


Gate Charge









Package outline dimension

