MOSPEC

0Z26NNE60Q

Dual N-Channel Enhancement Mode MOSFET

DESCRIPTION：

·Reliable and Rugged

·ROHS Compliant & Halogen-Free

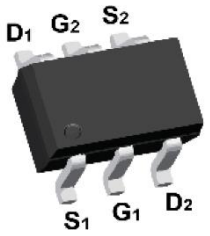
·ESD Protection

V_{DS}	60V
I_D	0.26A
$R_{DS(ON)_MAX}$ @V_{GS}=10V	1.9 Ω

TYPICAL APPLICATIONS：

·Power Management in DC/DC Converters

·Load Switch



SOT-363

MAXIMUM RATINGS (at T_C = 25 °C, unless otherwise specified)

Characteristic	Condition	Symbol	Value	Unit
Drain-Source Voltage		V_{DSS}	60	V
Gate-Source Voltage		V_{GS}	±20	V
Continuous Drain Current(1)	Tc=25℃ Tc=70℃	I_D	0.26 0.2	A
Pulsed Drain Current (1)		I_{DM}	0.64	A
Power dissipation	Tc=25℃ Tc=70℃	P_D	0.25 0.16	W
Maximum Junction Temperature		T_J	150	℃
Storage temperature Range		T_{STG}	-55~+150	℃

THERMAL CHARACTERISTICS

Characteristic	Condition	Symbol	Value	Unit
Thermal resistance,	Junction to Ambient	$R_{\theta JA}$	500	℃/W

NOTES:

1. Max. current is limited by Bonding wire
2.UIS tested and pulse width are limited by maximum junction temperature 150˚C

ELECTRICAL CHARATERISTICS (at T_J = 25 °C, unless otherwise specified)

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Drain-Source Breakdown Voltage VGS = 0V, ID = 250uA	$V_{(BR)DSS}$	60			V
Zero Gate Voltage Drain Current VDS = 48 V, VGS = 0 V	I_{DSS}			1.0	uA
Gate-Source Leakage Current VGS = ±20V, VDS = 0V	I_{GSS}			±10	uA
Gate-Source threshold voltage VDS = VGS, ID = 250uA	$V_{GS(th)}$	1	1.6	2.5	V
Drain-Source On-State Resistance VGS = 10V, ID = 0.3A VGS = 4.5V, ID = 0.2A	$R_{DS(on)}$		1.6 1.7	1.9 2.2	Ω
Forward Transconductance VDS=10V, IDS=0.15A	gfs		0.45		S
Input capacitance f=1MHz, VDS=30 V, VGS=0 V	C_{iss}		26.1		pF
Output capacitance f=1MHz, VDS=30 V, VGS=0 V	C_{oss}		2.7		pF
Reverse transfer capacitance f=1MHz, VDS=30 V, VGS=0 V	C_{rss}		1.7		pF
Turn-on delay time VDS= 30V, ID= 0.3A, VGS=10V, R_{GEN}=10Ω	td (ON)		1		ns
Rise time VDS= 30V, ID= 0.3A, VGS=10V, R_{GEN}=10Ω	tr		19.3		ns
Turn-off delay time VDS= 30V, ID= 0.3A, VGS=10V, R_{GEN}=10Ω	td (OFF)		23.2		ns
Fall time VDS= 30V, ID= 0.3A, VGS=10V, R_{GEN}=10Ω	tf		21		ns
Total Gate Charge VDS= 30V, ID= 1A, VGS= 4.5V VDS= 30V, ID= 1A, VGS= 10V	Q_G		0.9 1.7		nC
Gate to Source Charge VDS= 30V, ID= 1A, VGS= 10V	Q_{GS}		0.4		nC
Gate to Drain Charge VDS= 30V, ID= 1A, VGS= 10V	Q_{GD}		0.3		nC
Revers Recovery Time IF=0.1A, VR=0V,dIF/dt=100A/us	Trr		7.4		ns
Revers Recovery Charge IF=0.1A, VR=0V,dIF/dt=100A/us	Qrr		2.3		nC
Diode Forward Voltage VGS = 0V, I_{SD} = 0.15A	V_{SD}		0.8	1.1	V

Typical Performance Characteristics

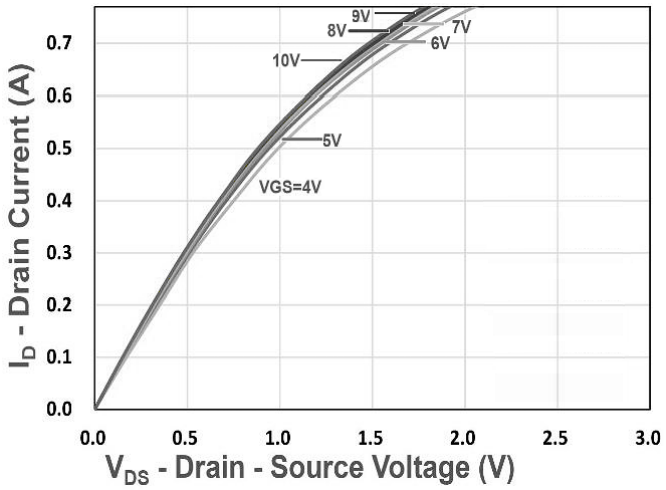


Figure 1. Output Characteristics

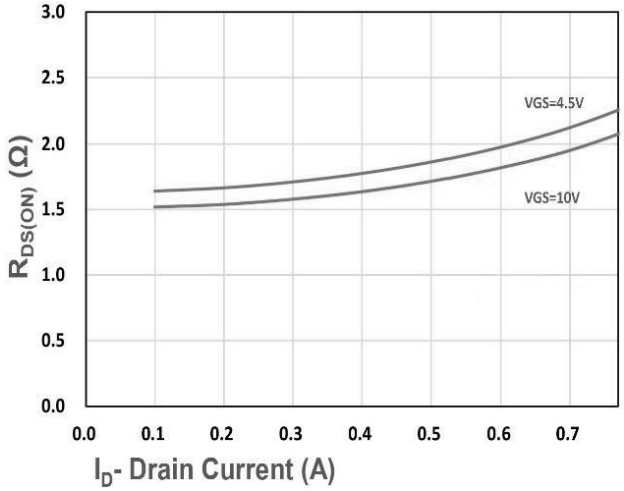


Figure 2. On-Resistance vs. ID

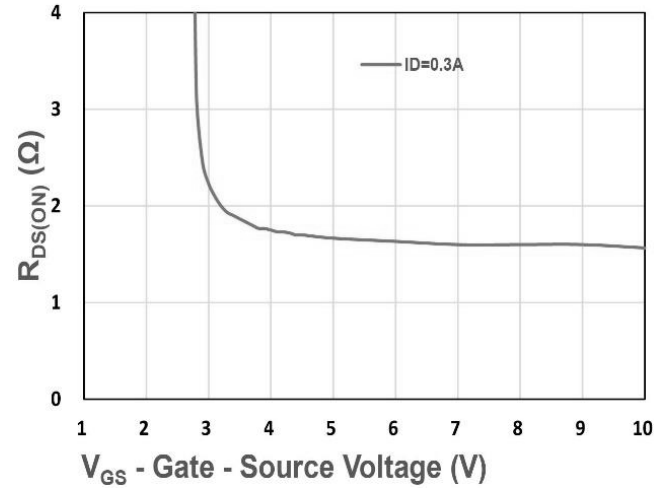


Figure 3. On-Resistance vs. VGS

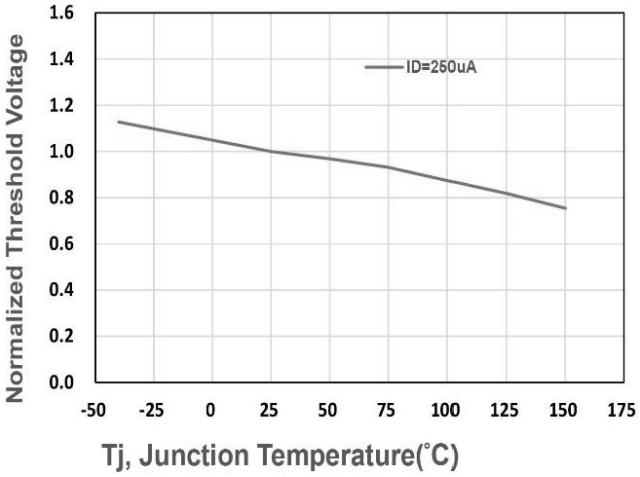


Figure 4. Gate Threshold Voltage

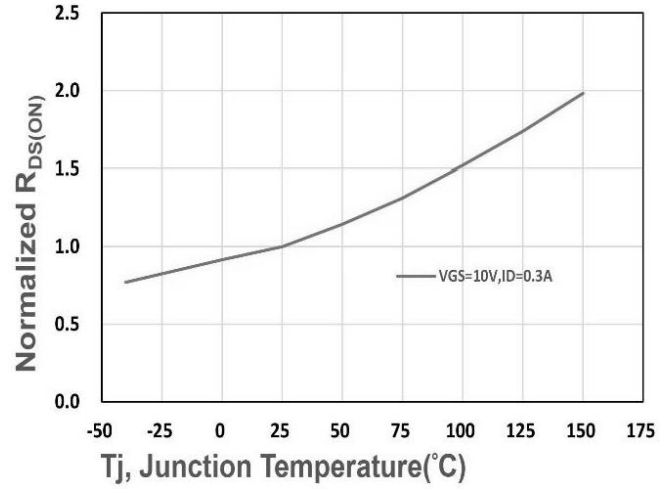


Figure 5. Drain-Source On Resistance

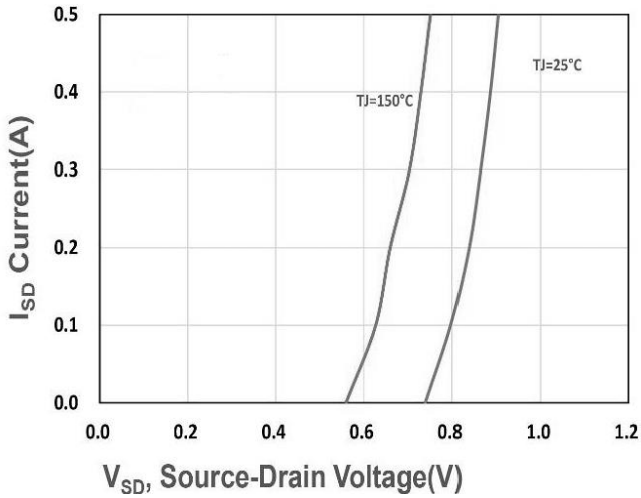


Figure 6. Source-Drain Diode Forward

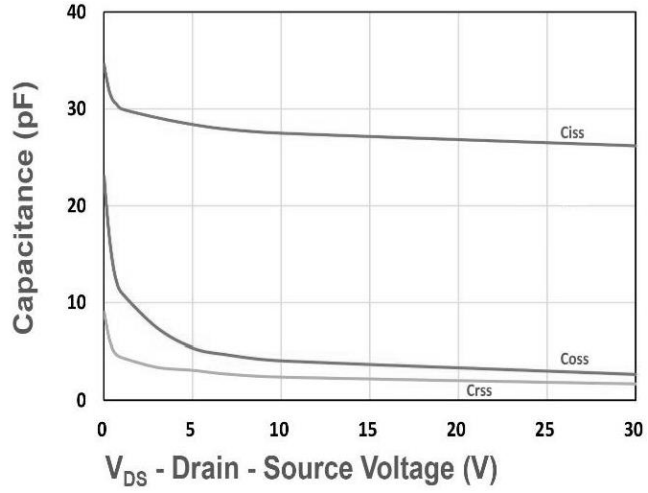


Figure 7. Capacitance

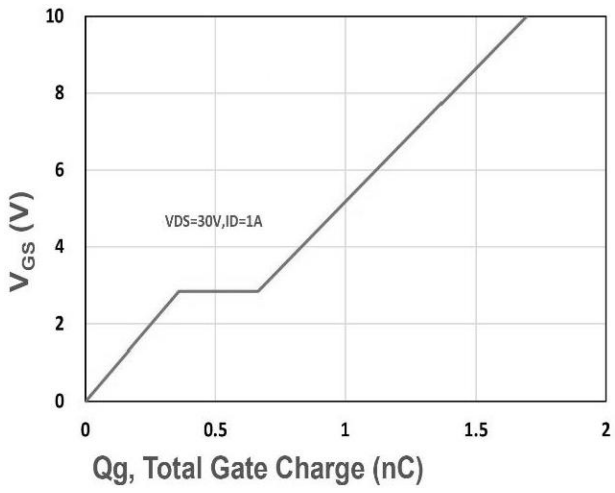


Figure 8. Gate Charge Characteristics

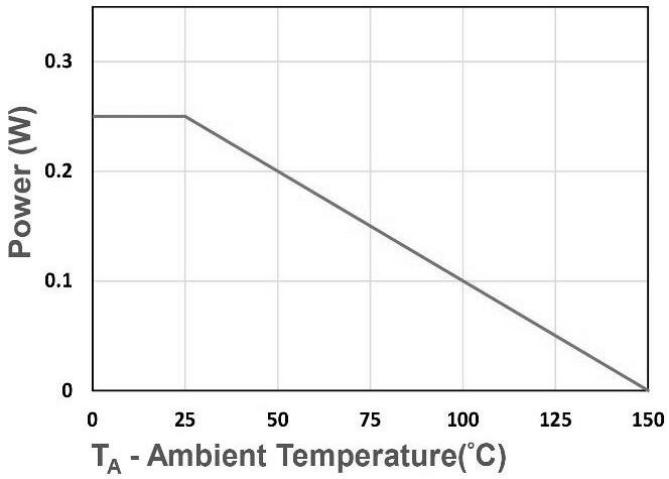


Figure 9. Power Dissipation

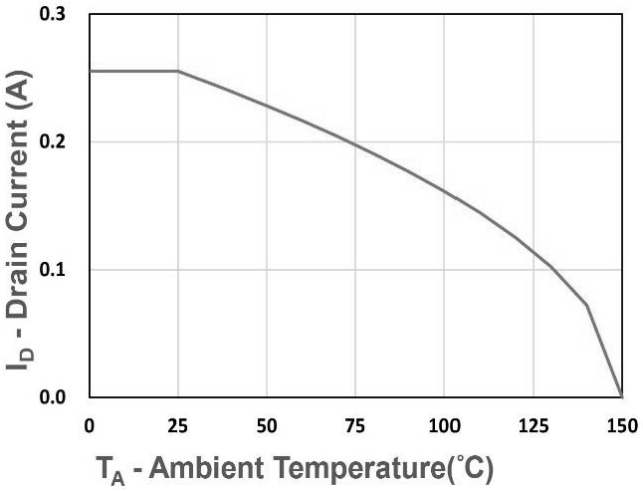


Figure 10. Drain Current

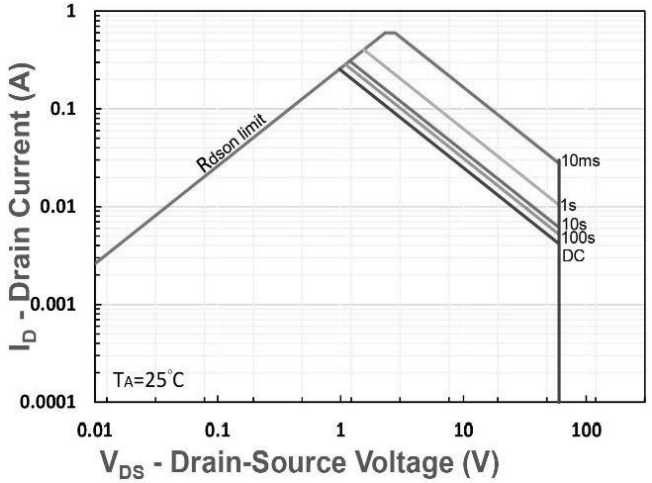


Figure 11. Safe Operating Area

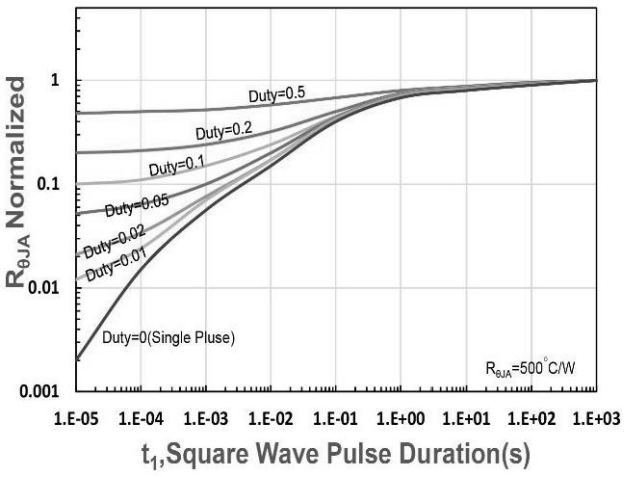
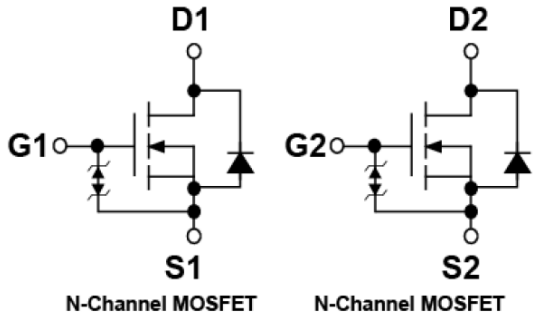
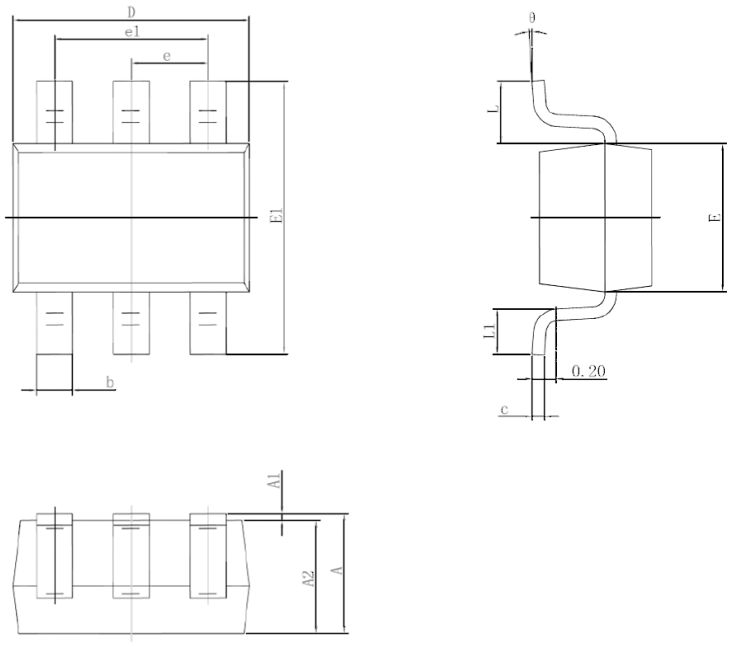


Figure 12. $R_{\theta JA}$ Transient Thermal Impedance

·Circuit diagram



·Package outlines : Dimensions in (mm)



Unit:mm	Min	Typ	Max
A	0.900	/	1.100
A1	0.000	/	0.100
A2	0.900	/	1.000
b	0.150	/	0.350
c	0.080	/	0.150
D	2.000	/	2.200
E	1.150	/	1.350
E1	2.150	/	2.450
e	0.650 TYP.		
e1	1.200	/	1.400
L	0.525 REF.		
L1	0.26	/	0.46
θ	0°	/	8°

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