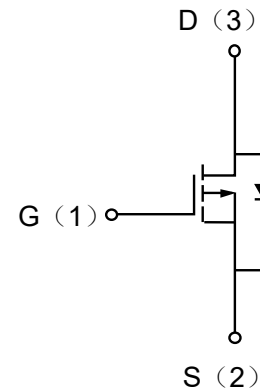


Description

The enhancement mode MOS is extremely high density cell and low on-resistance.

MOSFET Product Summary		
V _{DS} (V)	R _{DS(on)} (Ω)	I _D (A)
-60	0.11 @ V _{GS} =-10V	-2
	0.13 @ V _{GS} =-4.5V	


Electrical characteristics per line@25°C (unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Drain-Source Breakdown Voltage	BV _{DSS}	I _D = -250μA, V _{GS} = 0V	-60	-	-	V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = -60V, V _{GS} = 0V	-	-	-10	μA
Gate-Body Leakage Current	I _{GSS}	V _{DS} = 0V, V _{GS} = ±20V	-	-	±10	uA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = -250μA	-1		-3	V
Static Drain-Source On-Resistance	R _{DS(ON)}	V _{GS} = -10V, I _D = -1.8A	-	110	180	mΩ
		V _{GS} = -4.5V, I _D = -1.4A	-	130	200	mΩ
Diode Forward Voltage	V _{SD}	I _S = -1.2A, V _{GS} = 0V			-1.2	V
Total Gate Charge	Q _g	V _{GS} = -4.5V, V _{DS} = -48V, I _D = -1A		6.3		nC
Gate-Drain Charge	Q _{gs}			2.3		nC
Input Capacitance	Q _{gd}			1.8		nC
Input Capacitance	C _{ISS}	V _{GS} = 0V, V _{DS} = -25V, f = 1MHz	-	364		pF
Output Capacitance	C _{DSS}			-	41	pF
Reverse Transfer Capacitance	C _{RSS}			-	12	pF
Gate Resistance	R _g	V _{GS} = 0V, V _{DS} = 0V, f = 1MHz		9.8		Ω
Turn-On Delay Time	t _{d(on)}	V _{DD} = -6V, V _{GS} = -4.5V, R _L = 6Ω, R _G = 6Ω, I _D = -1A	-	20		ns
Turn-On Rise Time	t _r			33.1		
Turn-Off Delay Time	t _{d(off)}			5.2		
Turn-Off Fall Time	t _f			-	3.8	

Absolute maximum rating@25°C

Rating		Symbol	Value	Units
Drain-Source Voltage		V_{DS}	-60	V
Gate-Source Voltage		V_{GS}	± 20	V
Drain Current	Continuous $T_A=25^\circ\text{C}$	I_D	-2	A
	Pulsed $T_A=70^\circ\text{C}$	I_D	-1.5	A
Pulsed Drain Current		I_{DM}	-7.6	A
Total Power Dissipation	$T_A=25^\circ\text{C}$	P_D	1.4	W
	$T_A=70^\circ\text{C}$	P_D	0.9	W
Storage Temperature Range		T_{STG}	-55 to +150	$^\circ\text{C}$
Thermal Resistance-Junction to Ambient*		$R_{\theta JA}$	90	$^\circ\text{C/W}$

*The device mounted on 1in² FR4 board with 2 oz copper

Typical Characteristics

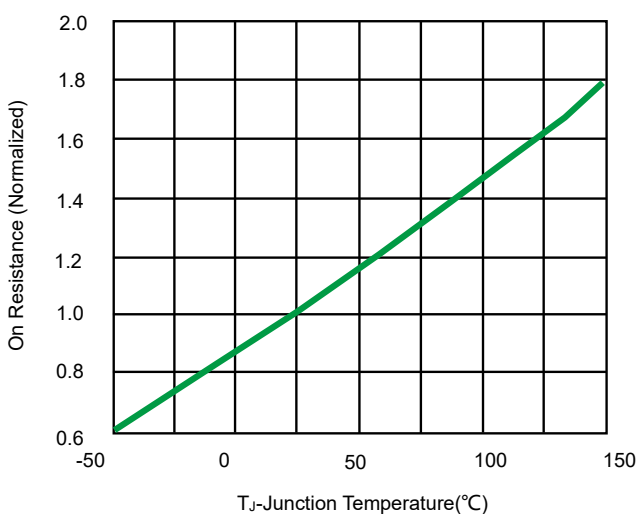


Fig 1. On Resistance vs. Junction Temperature

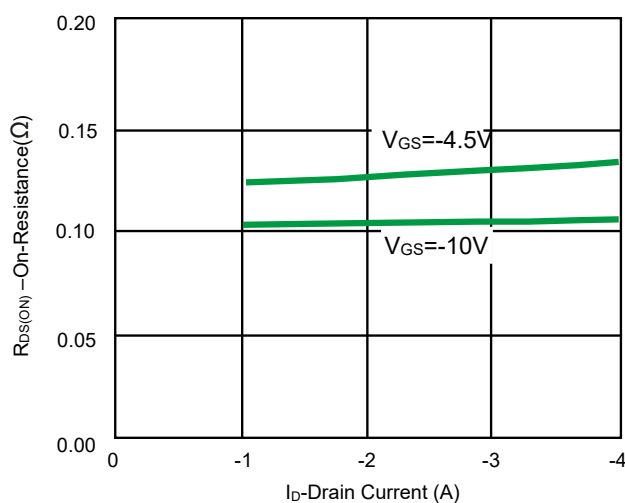


Fig 2. On-Resistance vs. Drain Current

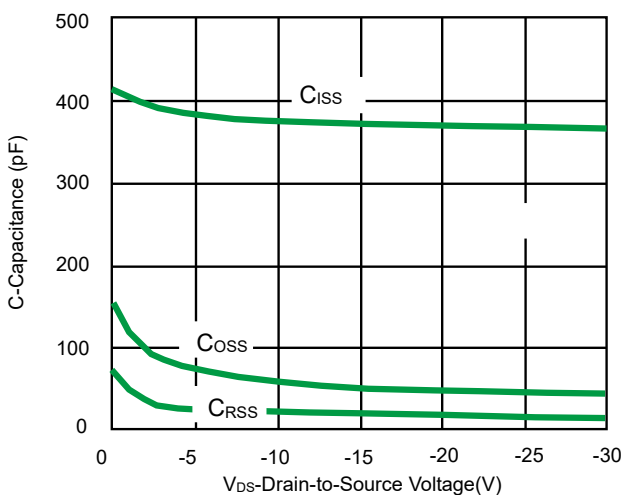


Fig 3. Capacitance

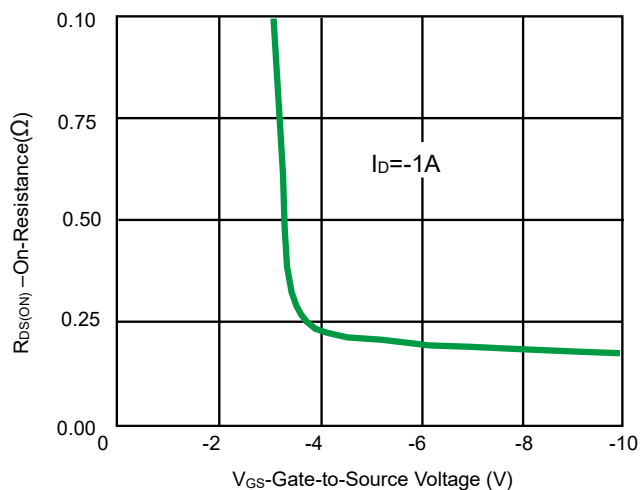


Fig 4. On-Resistance vs. Gate-to-Source Voltage

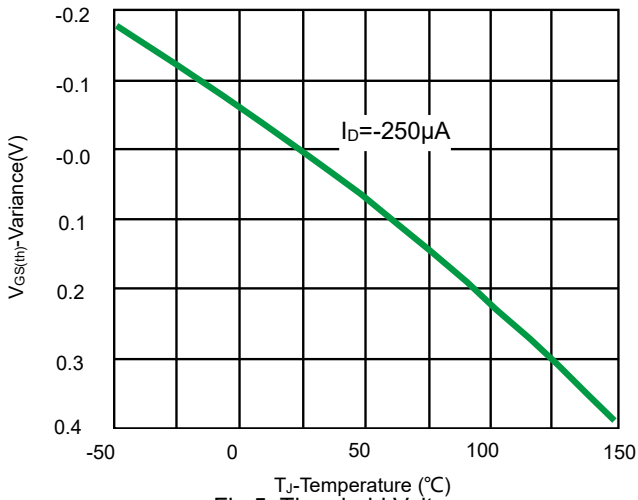


Fig 5. Threshold Voltage

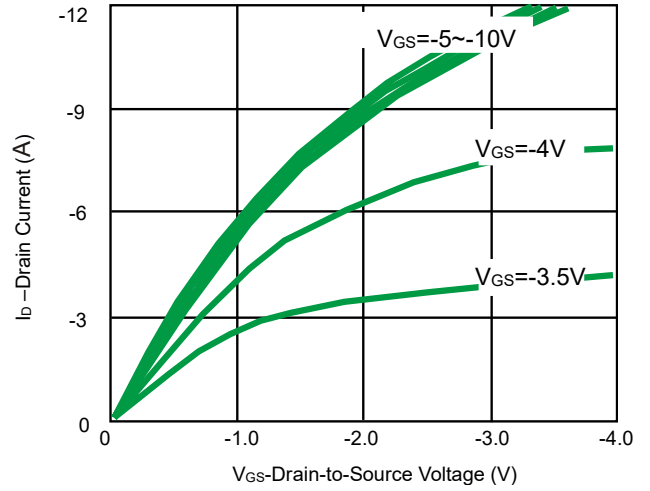


Fig 6. On-Region Characteristics

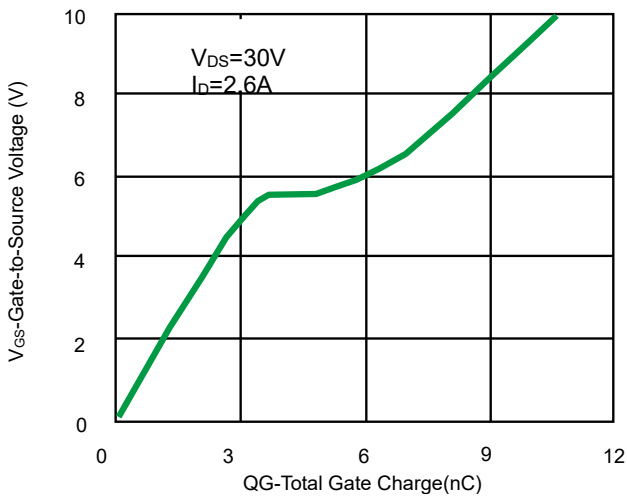


Fig 7. Gate Charge

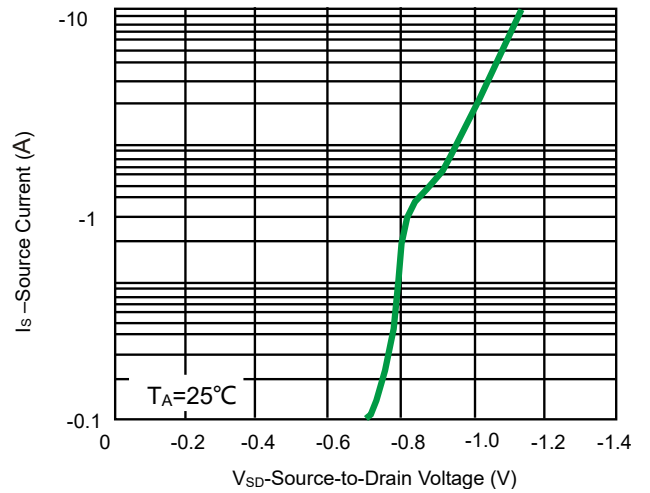


Fig 8. On-Resistance vs. Drain Current

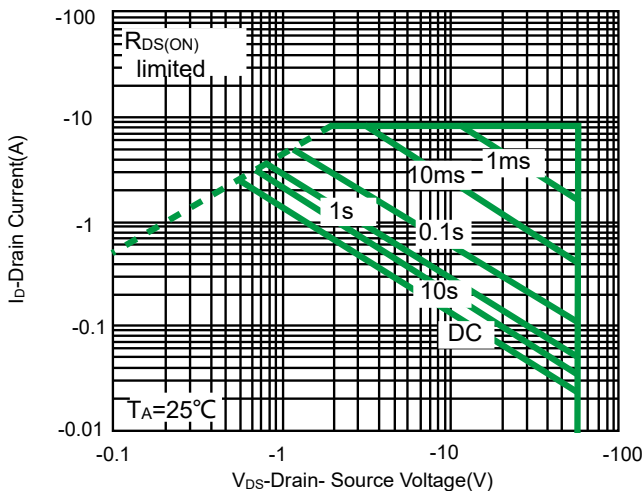


Fig 9. Maximum Forward Biased Safe Operating Area

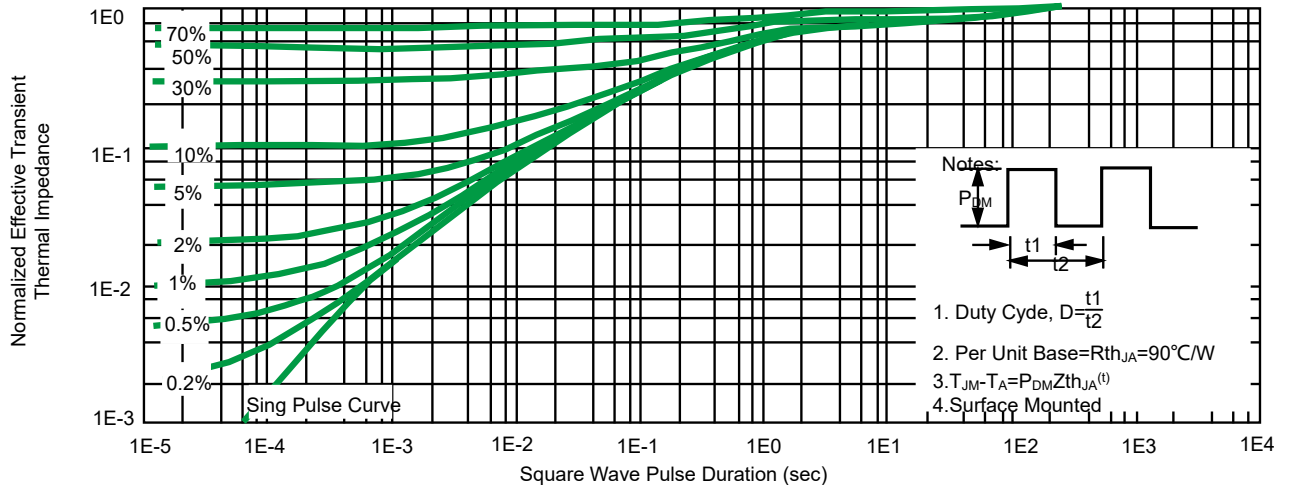
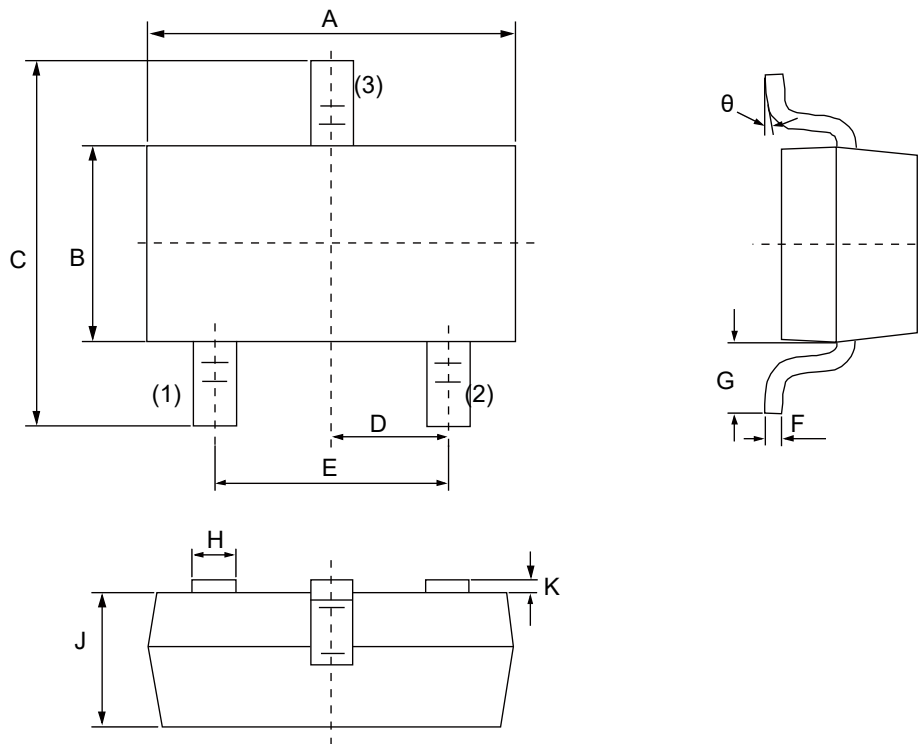


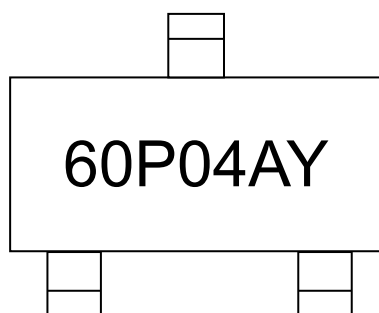
Fig 10. Normalized Thermal Transient Impedance, Junction-to-Ambient

Product dimension(SOT-23-3L)




Dim	Millimeters		Inches	
	MIN	MAX	MIN	MAX
A	2.82	3.02	0.111	0.119
B	1.50	1.70	0.059	0.067
C	2.65	2.95	0.104	0.116
D	0.950(BSC)		0.037(BSC)	
E	1.80	2.00	0.071	0.079
F	0.10	0.20	0.004	0.008
G	0.55(REF)		0.022(REF)	
H	0.30	0.50	0.012	0.020
J	1.05	1.15	0.041	0.045
K	0.00	0.10	0.000	0.004
θ	0°	8°	0°	8°

Marking information




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