

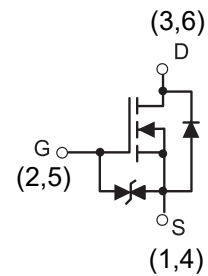
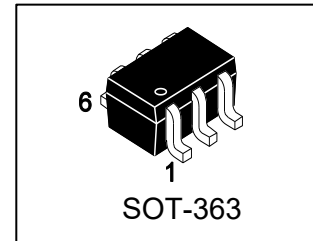
N-Channel 50V,0.2A ,ESD Protection, N-MOSFET

FEATURES

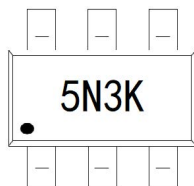
- $R_{DS(ON)} \leq 3.5\Omega @ V_{GS}=10V$
- $R_{DS(ON)} \leq 4\Omega @ V_{GS}=4.5V$
- Super high density cell design for extremely low $R_{DS(ON)}$
- Exceptional on-resistance and maximum DC current capability

APPLICATIONS

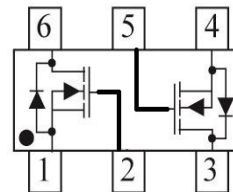
- Power Management in Note book
- DC/DC Converter
- Load Switch
- LCD Display inverter



MARKING



Pin configuration (Top view)



ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)					
Parameter	Symbol	5 secs	Steady State	Unit	
Drain-Source Voltage	V_{DS}	50		V	
Gate-Source Voltage	V_{GS}	± 20			
Continuous Drain Current ($T_J = 150^\circ\text{C}$) ^b	I_D	$T_A = 25^\circ\text{C}$	0.25	0.2	mA
		$T_A = 85^\circ\text{C}$	0.2	0.1	
Pulsed Drain Current ^a	I_{DM}	800			
Continuous Source Current (diode conduction) ^b	I_S	200	150		
Maximum Power Dissipation ^b for SOT363	P_D	$T_A = 25^\circ\text{C}$	250	200	mW
		$T_A = 85^\circ\text{C}$	150	120	
Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	633		$^\circ\text{C/W}$	
Operating Junction and Storage Temperature Range	T_J, T_{stg}	-55 to 150		$^\circ\text{C}$	

Notes

- Pulse width limited by maximum junction temperature.
- Surface Mounted on FR4 Board.



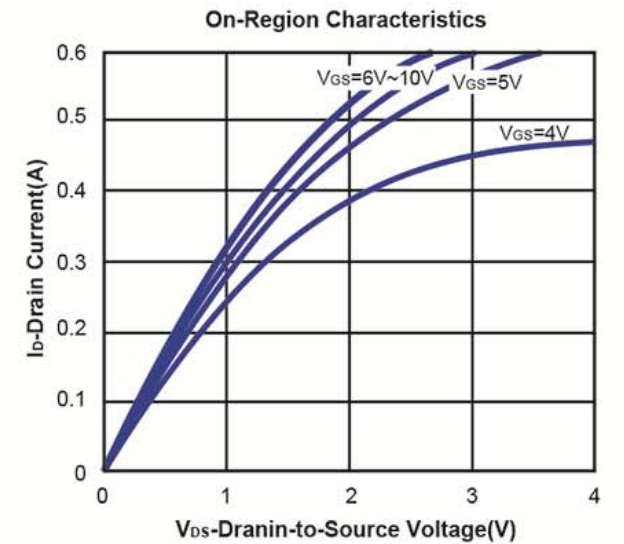
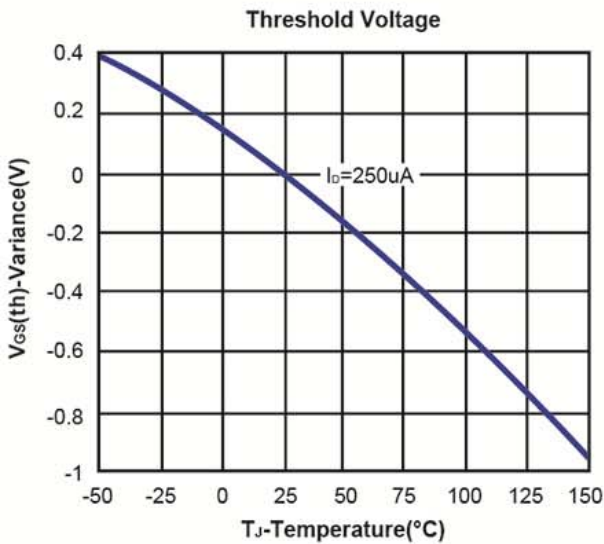
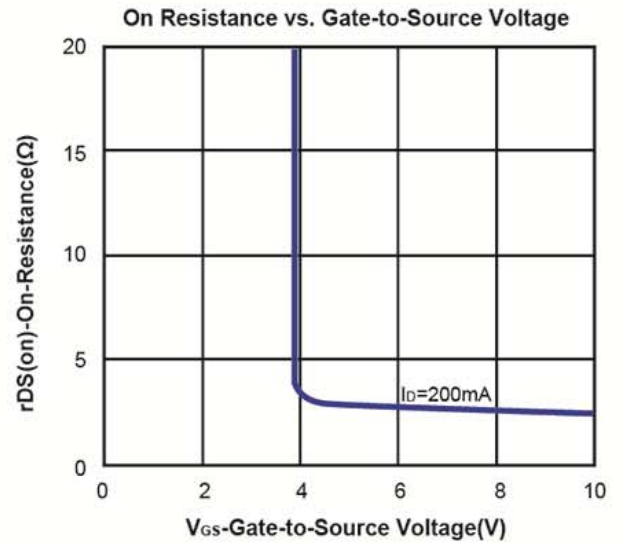
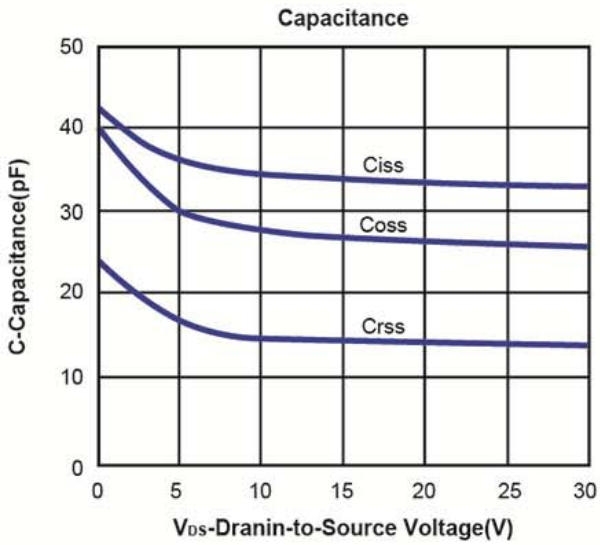
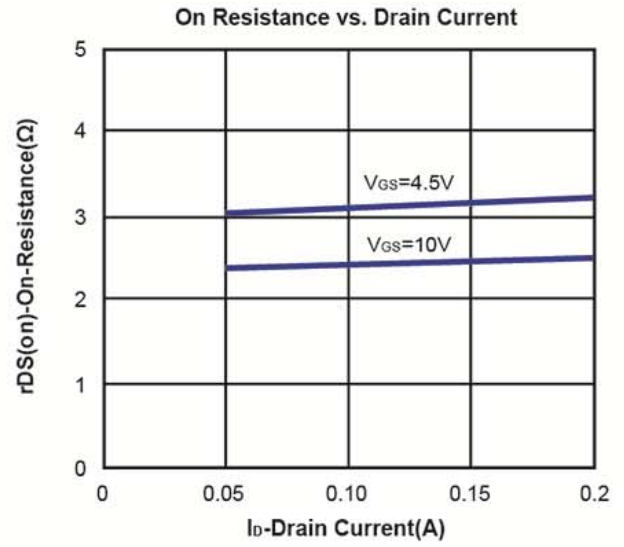
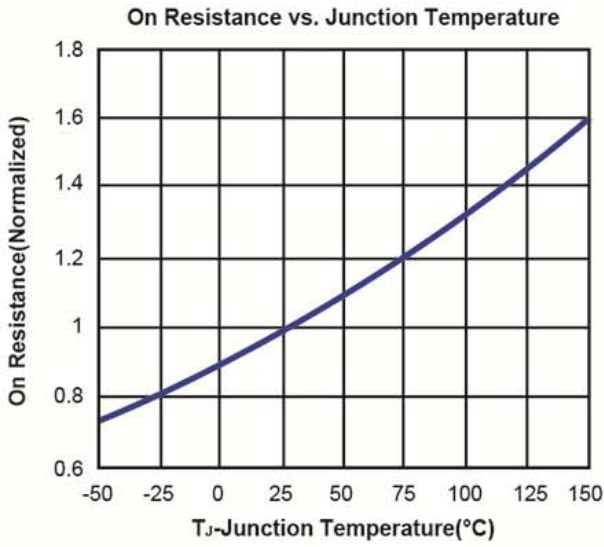
N-Channel 50V (D-S) MOSFET, ESD Protection

Electrical Characteristics (TA=25°C Unless Otherwise Specified)

Symbol	Parameter	Limit	Min	yp	Max	Unit
STATIC						
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V, I _D =250 μA	50			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} , I _D =1mA	0.6		1.5	V
I _{GSS}	Gate Leakage Current	V _{DS} =0V, V _{GS} =±20V			±10	μA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =50V, V _{GS} =0V			1	μA
R _{DS(ON)}	Drain-Source On-Resistance ^a	V _{GS} =10V, I _D =200mA		2.5	3.5	Ω
		V _{GS} =4.5V, I _D =200mA		3.1	4	
V _{SD}	Diode Forward Voltage	I _S =0.44A, V _{GS} =0V		0.8	1.4	V
DYNAMIC						
Q _g	Total Gate Charge	V _{DS} =25V, V _{GS} =10V, I _D =0.22A		4.7		nC
Q _{gs}	Gate Source Charge			1.7		
Q _{gd}	Gate-Drain Charge			0.8		
C _{iss}	Input Capacitance	V _{DS} =25V, V _{GS} =0V, f=1MHZ		33		pf
C _{oss}	Output Capacitance			25		
C _{rss}	Reverse Transfer Capacitance			13		
t _{d(on)}	Turn-On Delay Time	V _{DD} =5V, R _L =500Ω, V _{GEN} =5V, R _G =10Ω		10.1		ns
t _r	Turn-On Rise Time			7.3		
t _{d(off)}	Turn-Off Delay Time			31.3		
t _f	Turn-Off Fall Time			28.2		

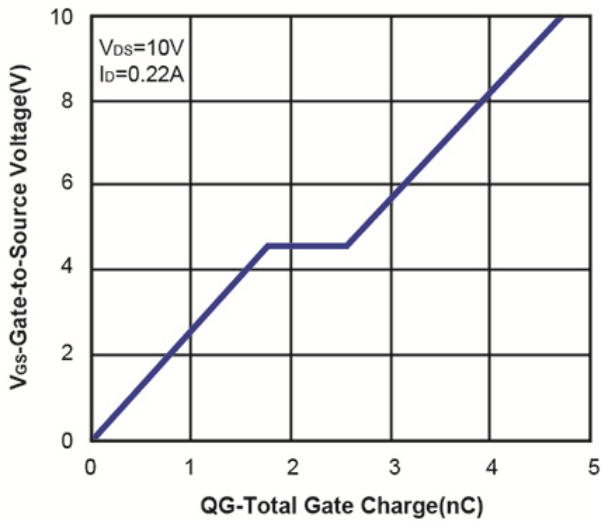
Notes: a. Pulse test: pulse width ≤ 300us, duty cycle ≤ 2%, Guaranteed by design, not subject to production testing.

b. Titan mos reserves the right to improve product design, functions and reliability without notice.

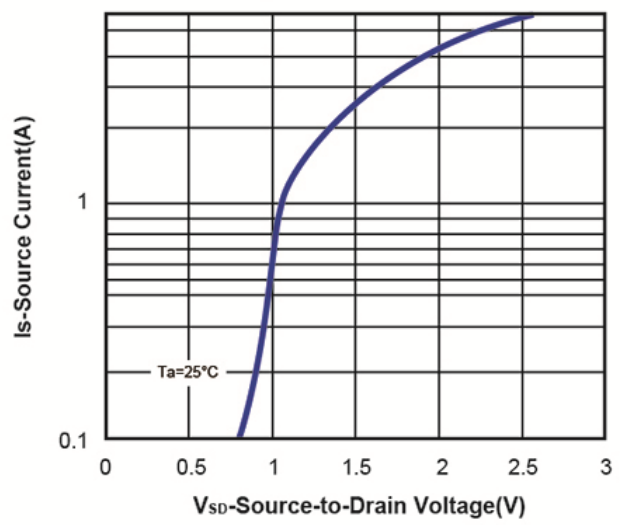




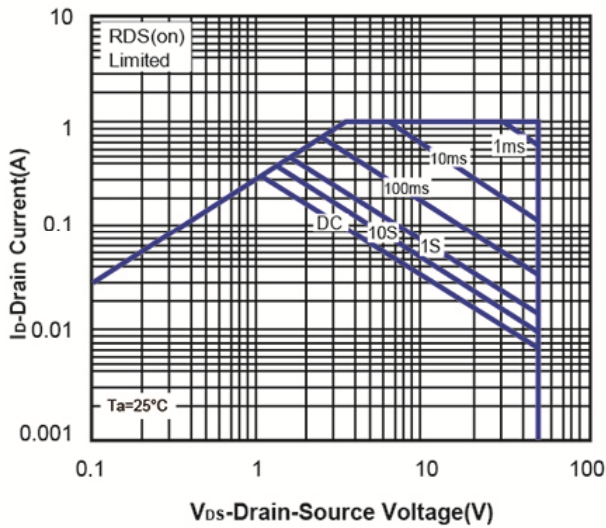
Gate Charge



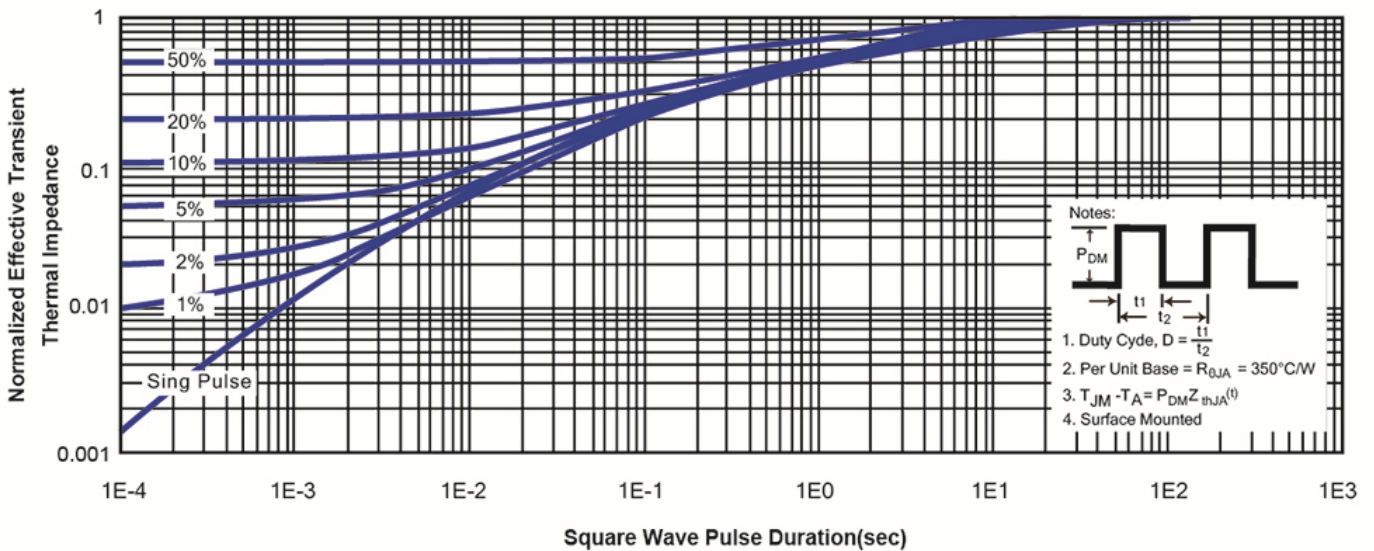
Body-diode characteristics



Maximum Forward Biased Safe Operating Area

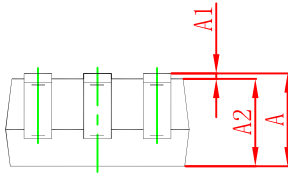
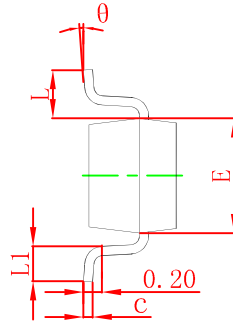
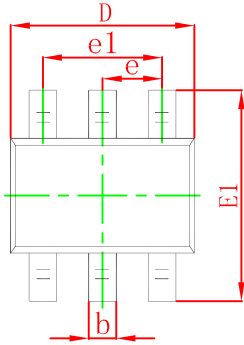


Normalized Thermal Transient Impedance, Junction-to-Ambient



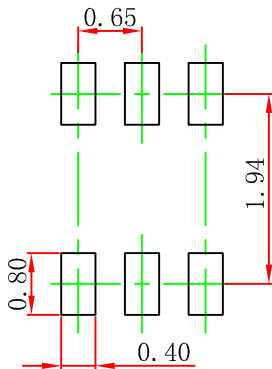


SOT-363 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.150	0.350	0.006	0.014
c	0.100	0.150	0.004	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.400	0.085	0.094
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
theta	0°	8°	0°	8°

SOT-363 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05mm.
3. The pad layout is for reference purposes only.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [MOSFET](#) category:

Click to view products by [Shenzhen JingYang](#) manufacturer:

Other Similar products are found below :

[IRFD120](#) [JANTX2N5237](#) [BUK455-60A/B](#) [MIC4420CM-TR](#) [VN1206L](#) [NDP4060](#) [SI4482DY](#) [IPS70R2K0CEAKMA1](#) [SQD23N06-31L-GE3](#)
[TK16J60W,S1VQ\(O](#) [2SK2614\(TE16L1,Q\)](#) [DMN1017UCP3-7](#) [DMN1053UCP4-7](#) [SQJ469EP-T1-GE3](#) [NTE2384](#) [DMC2700UDMQ-7](#)
[DMN2080UCB4-7](#) [DMN61D9UWQ-13](#) [US6M2GTR](#) [DMN31D5UDJ-7](#) [DMP22D4UFO-7B](#) [DMN1006UCA6-7](#) [DMN16M9UCA6-7](#)
[STF5N65M6](#) [IRF40H233XTMA1](#) [STU5N65M6](#) [DMN6022SSD-13](#) [DMN13M9UCA6-7](#) [DMTH10H4M6SPS-13](#) [DMN2990UFB-7B](#)
[IPB80P04P405ATMA2](#) [2N7002W-G](#) [MCAC30N06Y-TP](#) [MCQ7328-TP](#) [NTMC083NP10M5L](#) [BXP7N65D](#) [BXP4N65F](#) [AOL1454G](#)
[WMJ80N60C4](#) [BXP2N20L](#) [BXP2N65D](#) [BXT1150N10J](#) [BXT1700P06M](#) [TSM60NB380CP](#) [ROG](#) [RQ7L055BGTGR](#) [DMNH15H110SK3-13](#)
[SLF10N65ABV2](#) [BSO203SP](#) [BSO211P](#) [IPA60R230P6](#)