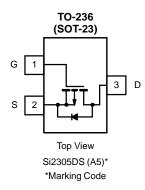


P-Channel 1.25-W, 1.8-V (G-S) MOSFET

PRODUCT SUMMARY				
V _{DS} (V)	$r_{DS(on)}\left(\Omega\right)$	I _D (A)		
	$0.052 @ V_{GS} = -4.5 V$	±3.5		
-8	0.071 @ V _{GS} = -2.5 V	±3		
	$0.108 @ V_{GS} = -1.8 V$	±2		





ABSOLUTE MAXIMUM RATINGS ($T_A = 25^{\circ}$ C UNLESS OTHERWISE NOTED)					
Parameter		Symbol	Limit	Unit	
Drain-Source Voltage		V _{DS}	-8	,,	
Gate-Source Voltage		V _{GS}	±8		
Continuous Drain Current (T _{.I} = 150°C)	T _A = 25°C	la .	±3.5		
Continuous Diam Current (1) = 130 C)	T _A = 70°C	I _D	±2.8		
Pulsed Drain Current		I _{DM}	±12	–	
Continuous Source Current (Diode Conduction) ^{a, b}		I _S	-1.6		
Maximum Power Dissipation) ^{a, b}	T _A = 25°C	Pn	1.25	w	
iwaxiiiuiii Fowei Dissipation)	T _A = 70°C	r _D	0.8		
Operating Junction and Storage Temperature Range		T _J , T _{stg}	-55 to 150	°C	

THERMAL RESISTANCE RATINGS					
Parameter		Symbol	Typical	Maximum	Unit
Maximum Junction-to-Ambient ^a	t ≤ 5 sec	P		100	°C/W
iviaximum sunction rio-Ambient	Steady State	R _{thJA}	130		

Notes

a. Surface Mounted on FR4 Board.

 $b. \quad t \leq 5 \text{ sec.}$

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Parameter	Symbol	Test Conditions	Limits				
			Min	Тур	Max	Unit	
Static			•	•		•	
Drain-Source Breakdown Voltage	V _{(BR)DSS}	$V_{GS} = 0 \text{ V}, I_{D} = -10 \mu\text{A}$	-8			v	
Gate-Threshold Voltage	V _{GS(th)}	$V_{DS} = V_{GS}, I_{D} = -250 \mu A$	-0.45				
Gate-Body Leakage	I _{GSS}	$V_{DS} = 0 \text{ V}, V_{GS} = \pm 8 \text{ V}$			±100	nA	
Zara Cata Valtaria Drain Current	1 .	$V_{DS} = -6.4 \text{ V}, V_{GS} = 0 \text{ V}$			-1		
Zero Gate Voltage Drain Current	IDSS	$V_{DS} = -6.4 \text{ V}, V_{GS} = 0 \text{ V}, T_{J} = 55^{\circ}\text{C}$			-10	μΑ	
On-State Drain Current ^a	1	$V_{DS} \le -5 \ V, V_{GS} = -4.5 \ V$	-6			А	
On-State Drain Current	ID(on)	$V_{DS} \le -5 \text{ V}, V_{GS} = -2.5 \text{ V}$	-3				
		$V_{GS} = -4.5 \text{ V}, I_D = -3.5 \text{ A}$		0.044	0.052	Ω	
Drain-Source On-Resistance ^a	^r DS(on)	$V_{GS} = -2.5$ V, $I_{D} = -3$ A		0.060	0.071		
		$V_{GS} = -1.8$ V, $I_{D} = -2$ A		0.087	0.108		
Forward Transconductance ^a	9 _{fs}	$V_{DS} = -5 \text{ V}, I_D = -3.5 \text{ A}$		8.5		S	
Diode Forward Voltage	V _{SD}	$I_S = -1.6 \text{ A}, V_{GS} = 0 \text{ V}$			-1.2	V	
Dynamic ^b							
Total Gate Charge	Q_{g}			10	15		
Gate-Source Charge	Q _{gs}	$V_{DS} = -4 \text{ V}, V_{GS} = -4.5 \text{ V}$ $I_{D} \cong -3.5 \text{ A}$		2		nC	
Gate-Drain Charge	Q _{gd}	B • • •		2			
Input Capacitance	C _{iss}			1245		pF	
Output Capacitance	Coss	$V_{DS} = -4 \text{ V}, V_{GS} = 0, f = 1 \text{ MHz}$		375			
Reverse Transfer Capacitance	C _{rss}			210			
Switching ^b							
Turn-On Time	t _{d(on)}			13	20		
Tuni-On Tillie	t _r	$\begin{aligned} V_{DD} &= -4 \;\; V, \; R_{L} = 4 \; \Omega \\ I_{D} &\cong -1.0 \; A, \; V_{GEN} = -4.5 \; V \\ R_{G} &= 6 \; \Omega \end{aligned}$		25	40	ns	
Turn-Off Time	t _{d(off)}			55	80		
Turn-On Time	t _f			19	35	1	

Notes

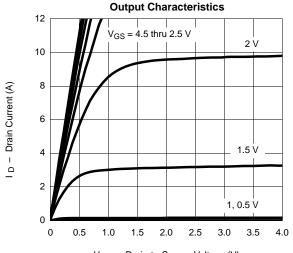
- $\begin{array}{ll} a. & \text{For DESIGN AID ONLY, not subject to production testing.} \\ b. & \text{Pulse test: } PW \leq 300~\mu\text{s duty cycle} \leq 2\%. \\ c. & \text{Switching time is essentially independent of operating temperature.} \end{array}$

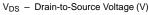


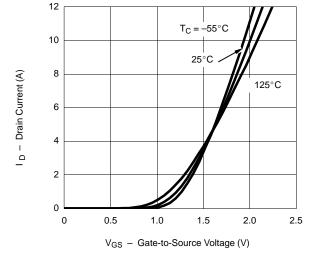




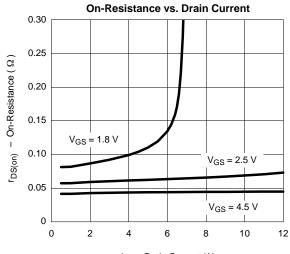
TYPICAL CHARACTERISTICS (25°C UNLESS NOTED)



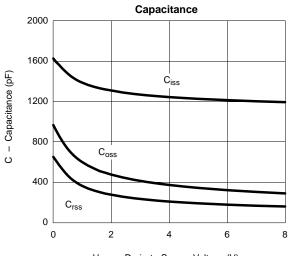




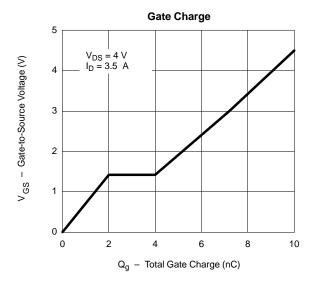
Transfer Characteristics

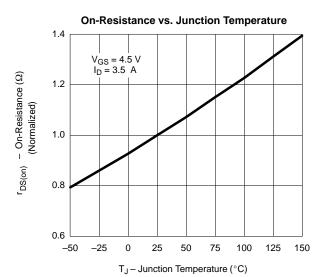


I_D - Drain Current (A)



V_{DS} - Drain-to-Source Voltage (V)





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TYPICAL CHARACTERISTICS (25°C UNLESS NOTED)

