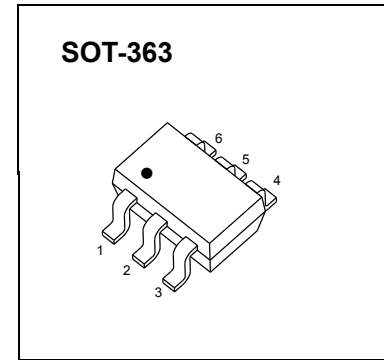


Plastic-Encapsulate MOSFETs

Dual N-channel MOSFET

V _{DS} (V)	R _{ds(on)} (Ω)	I _D (A)
20	0.340@ V _{GS} =4.5V	0.2
	0.430@ V _{GS} =2.5V	0.1
	0.660@ V _{GS} =1.8V	0.075

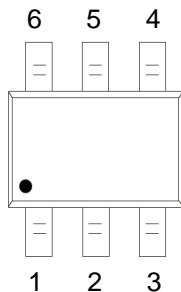


FEATURE

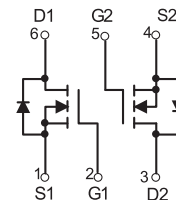
- Dual N-channel enhancement mode field-effect transistor in a plastic package using TrenchMOS[®] technology.
- Surface mounted package
- Low on-state resistance
- Low threshold voltage.

APPLICATION

- Switching in portable appliances.
- Driver circuits



Equivalent Circuit



MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{DS}	Drain-Source voltage	20	V
V _{GS}	Gate-Source voltage	±8	V
I _D	Drain Current	870	mA
P _D	Power Dissipation	400	mW
R _{θJA}	Thermal Resistance from Junction to Ambient	335	°C/W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55-150	°C

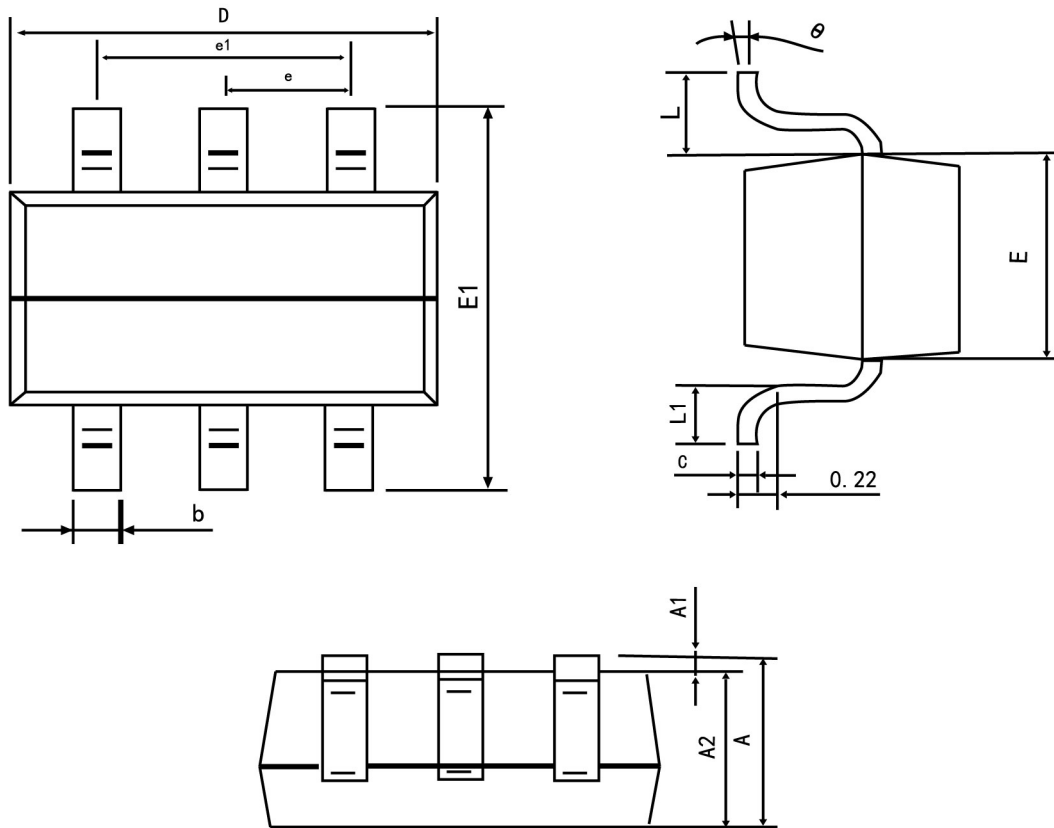
MOSFET ELECTRICAL CHARACTERISTICS

Electronics Characteristics (Ta=25°C, unless otherwise noted)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
OFF CHARACTERISTICS						
Drain-to-Source Breakdown Voltage	BV_{DSS}	$V_{GS} = 0\text{ V}, I_D = 1\mu\text{A}$	20			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 20\text{ V}, V_{GS} = 0\text{ V}$			1	μA
Gate-to-source Leakage Current	I_{GSS}	$V_{DS} = 0\text{ V}, V_{GS} = \pm 8\text{ V}$			100	nA
ON CHARACTERISTICS						
Gate Threshold Voltage	$V_{GS(TH)}$	$V_{GS} = V_{DS}, I_D = 250\mu\text{A}$	0.45	0.7	1.0	V
Drain-to-source On-resistance	$R_{DS(on)}$	$V_{GS} = 4.5\text{ V}, I_D = 0.2\text{ A}$		280	340	m Ω
		$V_{GS} = 2.5\text{ V}, I_D = 0.1\text{ A}$		360	430	
		$V_{GS} = 1.8\text{ V}, I_D = 0.075\text{ A}$		460	660	
Forward Transconductance	g_{FS}	$V_{DS} = 5\text{ V}, I_D = 0.55\text{ A}$		2.0		S
CHARGES, CAPACITANCES AND GATE RESISTANCE						
Input Capacitance	C_{ISS}	$V_{GS} = 0\text{ V}, f = 1.0\text{ MHz}, V_{DS} = 20\text{ V}$		45		pF
Output Capacitance	C_{OSS}			11		
Reverse Transfer Capacitance	C_{RSS}			7		
Total Gate Charge	$Q_{G(TOT)}$	$V_{GS} = 4.5\text{ V}, V_{DS} = 10\text{ V}, I_D = 1\text{ A}$		0.89		nC
Threshold Gate Charge	$Q_{G(TH)}$			0.06		
Gate-to-Source Charge	Q_{GS}			0.13		
Gate-to-Drain Charge	Q_{GD}			0.18		
SWITCHING CHARACTERISTICS						
Turn-On Delay Time	$t_d(ON)$	$V_{GS} = 4.5\text{ V}, V_{DS} = 10\text{ V}, R_L = 10\ \Omega, R_G = 6\ \Omega$		4.5		ns
Rise Time	t_r			10		
Turn-Off Delay Time	$t_d(OFF)$			18.5		
Fall Time	t_f			5		
BODY DIODE CHARACTERISTICS						
Forward Voltage	V_{SD}	$V_{GS} = 0\text{ V}, I_S = 0.30\text{ A}$	0.5	0.83	1.2	V



SOT-363-Package Outline Dimensions



Symbol	Dimension in Millimeters	
	Min	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	0.260	0.460
theta	0°	8°