

Single N-Channel, 20V, 0.75A, MOSFET

Features

- ✧ Trench Technology
- ✧ Supper high density cell design
- ✧ Excellent ON resistance
- ✧ Extremely Low Threshold Voltage
- ✧ Small package SOT-723

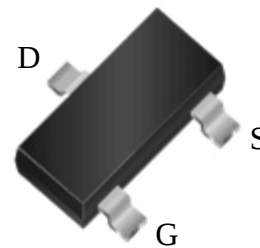
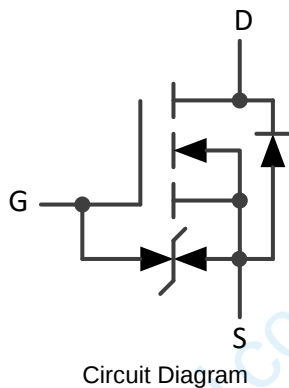
V_{DS} (V)	Typical $R_{DS(on)}$ (m Ω)
20	250 @ $V_{GS}=4.5V$
	350 @ $V_{GS}=2.5V$
	400 @ $V_{GS}=1.8V$

Applications

- ✧ Interfacing Switching
- ✧ Load/Power Switching for portable device

Mechanical Data

- ✧ UL Flame Rating : UL94V-0
- ✧ Reel Size : 7 inch
- ✧ RoHS/WEEE Complain



SOT-723

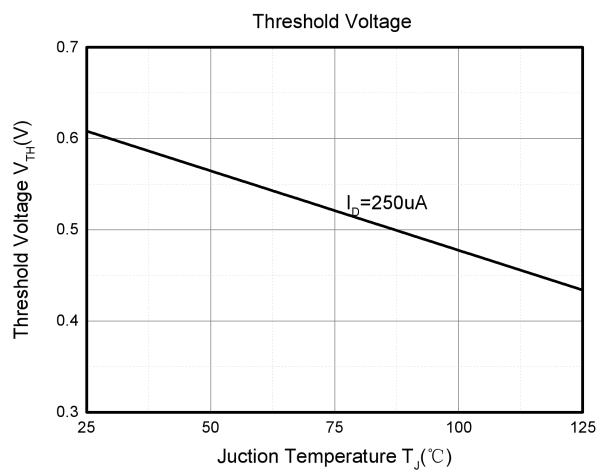
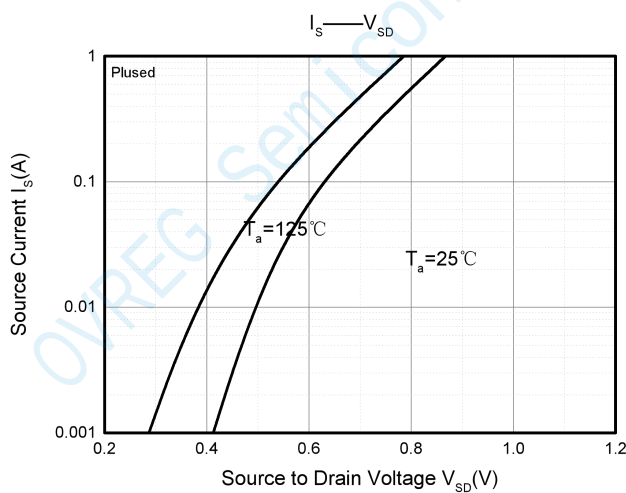
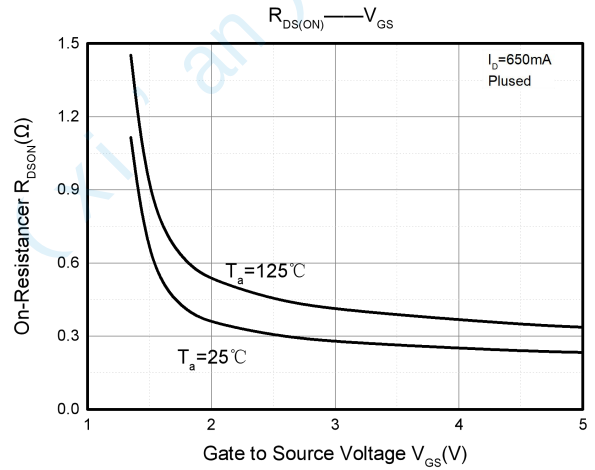
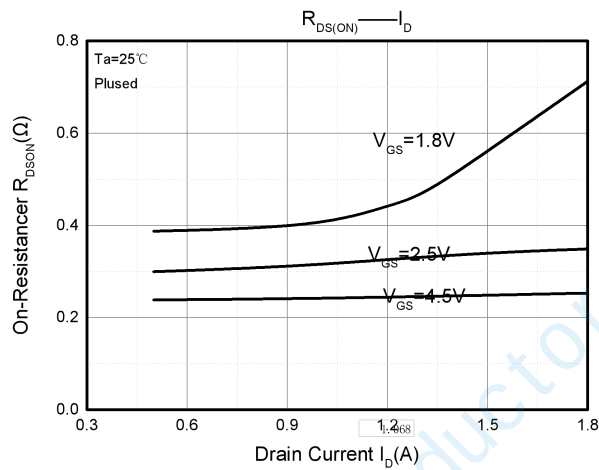
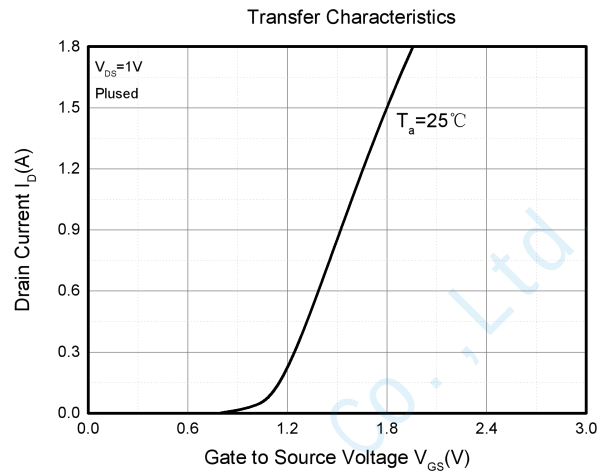
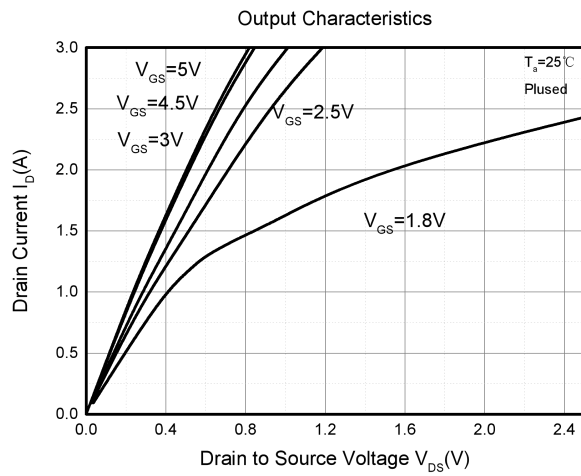
Absolute Maximum Rating at $T_A = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	± 10	
Continuous Drain Current $T_A=25^\circ\text{C}$	I_D	0.75	A
Maximum Power Dissipation	P_D	0.15	W
Pulsed Drain Current	I_{DM}	1.8	A
Operating Junction Temperature	T_J	-55 to 150	$^\circ\text{C}$
Lead Temperature	T_L	260	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to 150	$^\circ\text{C}$

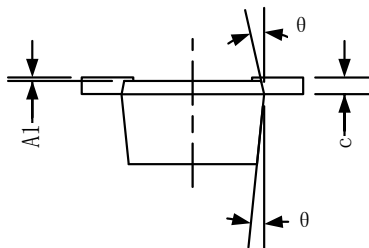
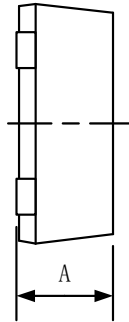
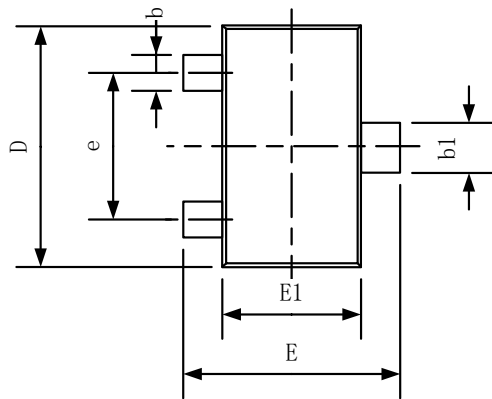
Electronics Characteristics (Ta=25°C, unless otherwise noted)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
OFF CHARACTERISTICS						
Drain-to-Source Breakdown Voltage	BV_{DSS}	$V_{GS} = 0\text{ V}, I_D = 250\mu\text{A}$	20			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 16\text{V}, V_{GS} = 0\text{V}$			1	μA
Gate-to-source Leakage Current	I_{GSS}	$V_{DS} = 0\text{ V}, V_{GS} = \pm 10\text{V}$			± 10	μA
ON CHARACTERISTICS						
Gate Threshold Voltage	$V_{GS(TH)}$	$V_{GS} = V_{DS}, I_D = 250\mu\text{A}$	0.3	0.65	1.0	V
Drain-to-source On-resistance	$R_{DS(on)}$	$V_{GS} = 4.5\text{V}, I_D = 0.5\text{A}$		250	380	m Ω
		$V_{GS} = 2.5\text{V}, I_D = 0.5\text{A}$		350	450	
		$V_{GS} = 1.8\text{V}, I_D = 0.5\text{A}$		400	800	
CHARGES, CAPACITANCES AND GATE RESISTANCE						
Input Capacitance	C_{ISS}	$V_{GS} = 0\text{ V}, f = 1.0\text{MHz}, V_{DS} = 16\text{V}$		79	120	pF
Output Capacitance	C_{OSS}			13	20	
Reverse Transfer Capacitance	C_{RSS}			9	15	
SWITCHING CHARACTERISTICS						
Turn-On Delay Time	$t_d(ON)$	$V_{DS} = 10\text{ V}, V_{GS} = 4.5\text{V}, I_D = 0.5\text{A}, R_G = 10\Omega,$		6.7		ns
Rise Time	t_r			4.8		
Turn-Off Delay Time	$t_d(OFF)$			17.3		
Fall Time	t_f			7.4		
BODY DIODE CHARACTERISTICS						
Forward Voltage	V_{SD}	$V_{GS} = 0\text{ V}, I_S = 0.5\text{A}$		0.7	1.3	V

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

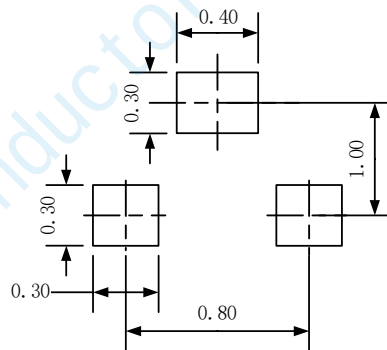


Package information



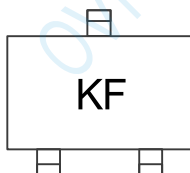
Symbol	Dim in mm	
	Min.	Max.
A	0.430	0.500
A1	0.000	0.050
b	0.170	0.270
b1	0.270	0.370
c	0.080	0.150
D	1.150	1.250
E	1.150	1.250
E1	0.750	0.850
e	0.800TYP.	
θ	7°REF	

Recommend PCB Layout



Notes: This PCB Layout Is For Reference Purposes Only

Marking



Ordering Information

Part number	Material	Type	Reel size	MOQ	MOQ/internal box	MOQ/carton
OVM20N350T7	GREEN	T/R	7 inch	8k/reel	10reel= 80k/box	4boxes=320k/carton