

Single N-Channel, 60V, 115mA, MOSFET

Features

- ✧ High density cell design for Low $R_{DS(on)}$
- ✧ Voltage controlled small signal switch
- ✧ Rugged and reliable

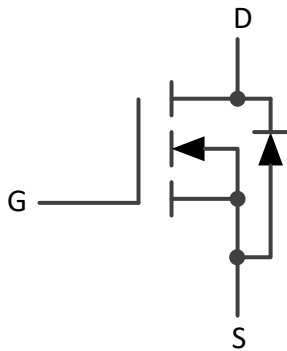
V_{DS} (V)	Typical $R_{DS(on)}$ (Ω)
60	0.9 @ $V_{GS}=10V$
	1.1 @ $V_{GS}=5V$

Applications

- ✧ DC/DC Converter
- ✧ Load Switch for Portable Devices
- ✧ Battery Switch

Mechanical Data

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



Circuit Diagram



SOT-523

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

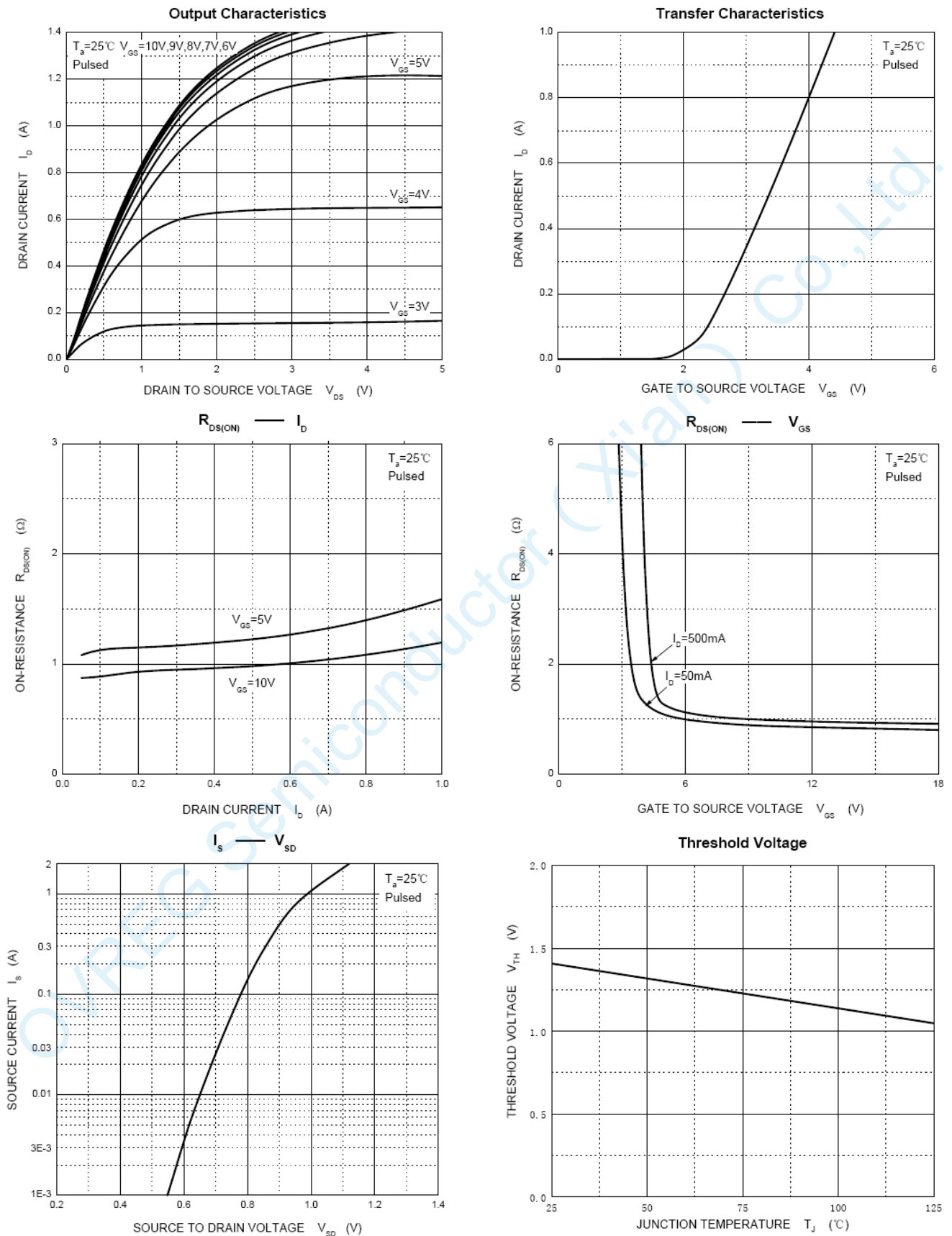
Parameter	Symbol	Value	Units
Drain-Source Voltage	V_{DS}	60	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current	I_D	115	mA
Power Dissipation	P_D	0.15	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	833	$^\circ\text{C/W}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55~ +150	$^\circ\text{C}$

Electrical Characteristics at $T_A = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

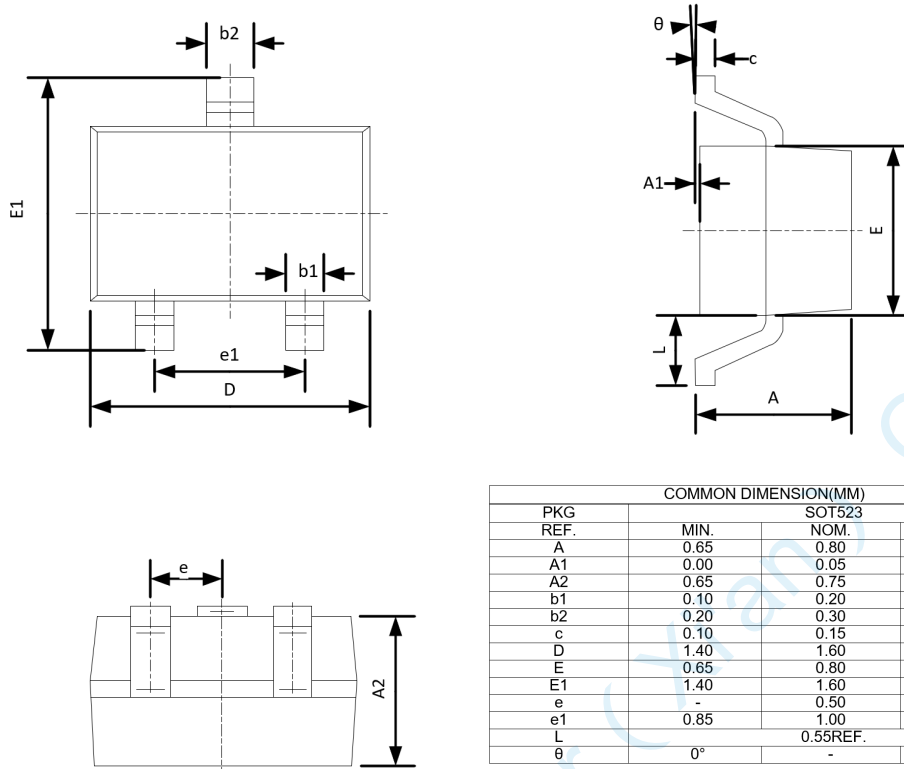
Parameter	Symbols	Test Condition	Limits			Unit
			Min	Typ	Max	
Off Characteristics						
Drain-Source Breakdown Voltage	V(BR)DSS	VGS=0V, ID=250uA	60			V
Gate-Threshold voltage	V GS (th)	VDS= VGS, ID=250uA	1.0		2.5	V
Gate-body Leakage	IGSS	VDS=0V, VGS=± 20V			±80	nA
Zero Gate Voltage Drain current	IDSS	VDS=60V, VGS=0V			80	nA
On-state Drain Current	ID(ON)	VGS=10V, VDS=7V	500			mA
Drain-Source On-Resistance (note2)	RDS(ON)	VGS=10V, ID=500mA		0.9	2.5	Ω
		VGS=5V, IC=50mA		1.1	3	
Forward Tran conductance	gFS	VDS=10V, ID=200mA	80			mS
Drain-source on-voltage	VDS(ON)	VGS=10V, ID=500mA			3.75	V
		VGS=5V, ID=50mA			0.375	V
Diode Forward Voltage	VSD	Is=115mA, VGS=0V	0.55		1.2	V
Dynamic Parameters *						
Input capacitance	Ciss	VDS=25V, VGS=0V,f=1MHz			50	pF
Output capacitance	Coss				25	
Reverse Transfer capacitance	Crss				5	
Switching Parameters *						
Turn-on Delay Time	td(on)	VGEN=10V,VDD=25V, RG=25Ω			20	ns
Turn-off Delay Time	td(off)	RL=50Ω, ID=500mA			40	ns

* These parameters have no way to verify.

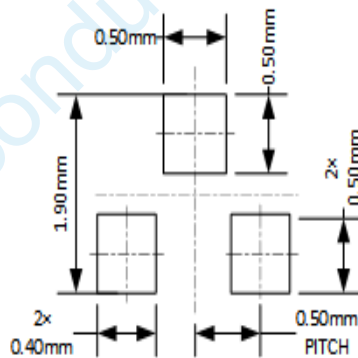
Typical Characteristics at $T_A = 25\text{ }^{\circ}\text{C}$, unless otherwise specified



Package Information

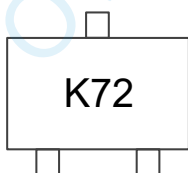


Recommend PCB Layout



Notes: This PCB Layout Is For Reference Purposes Only

Marking



Ordering Information

Part number	Material	Type	Reel size	MOQ	MOQ/internal box	MOQ/carton
OVM6013ET5	GREEN	T/R	7 inch	3k/reel	10reel= 30k/box	4boxes=120k/carton