SE20P07M

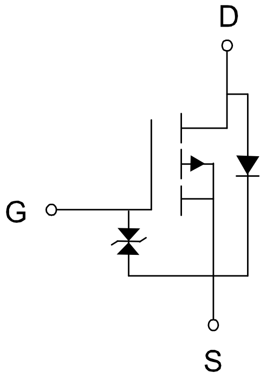
20V P-Channel MOSFET

Features

- Surface Mount Package
- P-Channel Switch with Low RDS(on)
- Operated at Low Logic Level Gate Drive
- ESD Protected

V_{DSS}	$R_{DS(ON)}$ @V_{GS}=-4.5V	$R_{DS(ON)}$ @V_{GS}=-2.5V	I_D
-20V	0.8Ω	1.1Ω	-0.66A

Schematic & PIN Configuration



SOT723

Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	-20	V
Gate-Source Voltage	V_{GS}	±12	V
Continuous Drain Current	I_D	-0.66	A
Pulsed Drain Current	I_{DM}	-1.2	A
Power Dissipation	P_D	0.15	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	833	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55~ +150	℃

■ Electrical Characteristics (T_A = 25°C unless otherwise noted)

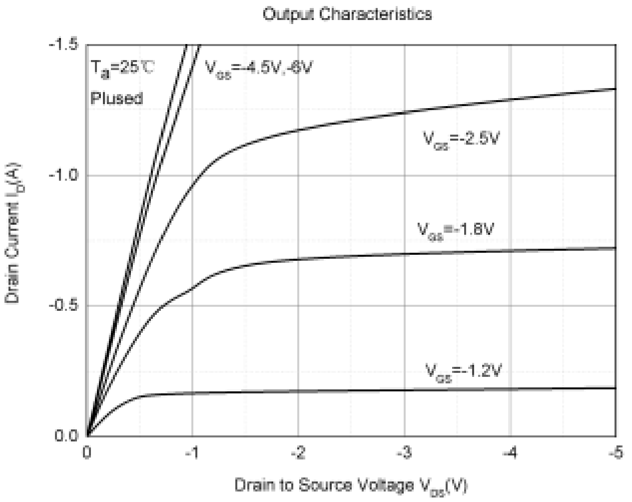
Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Static Characteristics						
Drain-source breakdown voltage	$V_{(BR)DSS}$	V_{GS} = 0V, I_D =-250μA	-20			V
Zero gate voltage drain current	I_{DSS}	V_{DS} =-16V,V_{GS} = 0V			-1	μA
Gate-body leakage current	I_{GSS}	V_{GS} = ±10V，V_{DS} =0V			±10	μA
Gate threshold voltage	$V_{GS(th)}$	V_{DS} =V_{GS}, I_D =-250μA	-0.35	-0.65	-1	V
Drain-source on-resistance$^{1)}$	$R_{DS(on)}$	V_{GS} = -4.5V, I_D = -0.5A		0.65	0.8	Ω
		V_{GS} = -2.5V, I_D = -0.2A		0.85	1.1	
		V_{GS} = -1.8V, I_D = -0.1A		1.2		
Dynamic characteristics$^{2)}$						
Input Capacitance	C_{iss}	V_{DS} =-16V,V_{GS} =0V,f =1MHz		113		pF
Output Capacitance	C_{oss}			15		
Reverse Transfer Capacitance	C_{rss}			9		
Turn-on delay time	$t_{d(on)}$	V_{DS}=-10V,I_D=-200mA, V_{GS}=-4.5V,R_G=10Ω		9		ns
Turn-on rise time	t_r			5.7		
Turn-off delay time	$t_{d(off)}$			32.6		
Turn-off fall time	t_f			20.3		
Source-Drain Diode characteristics						
Diode Forward voltage	V_{SD}	V_{GS} =0V, I_S=-0.5 A			-1.2	V

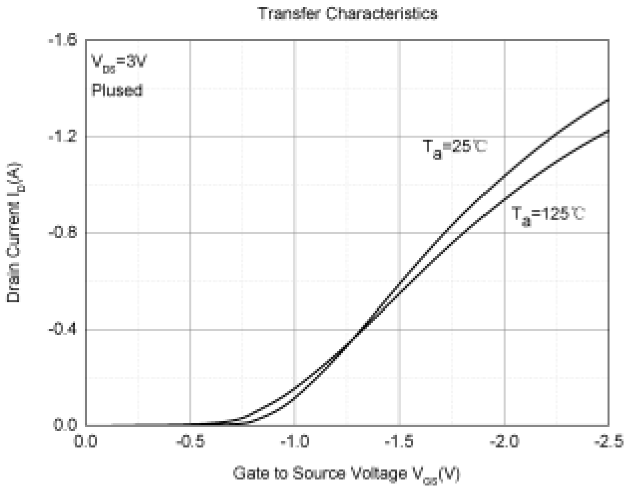
Notes:

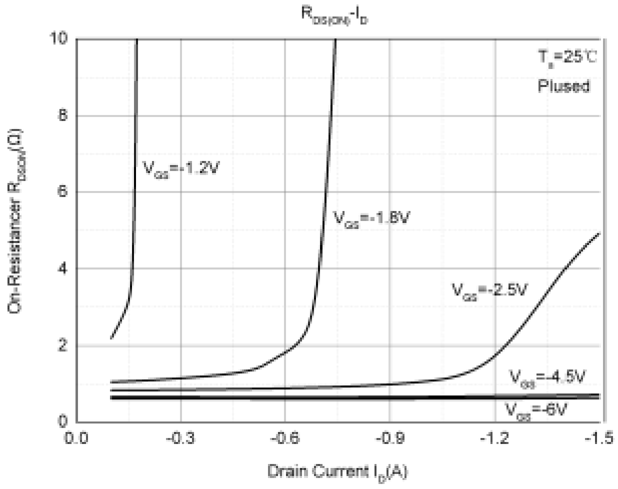
1) Pulse Test: Pulse Width < 300μs, Duty Cycle ≤2%.

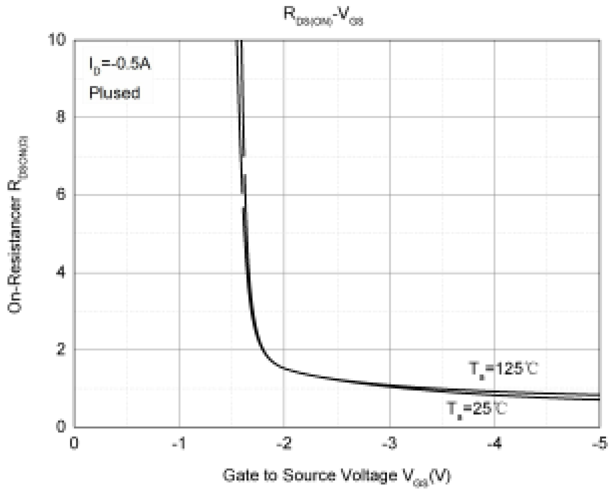
2) Guaranteed by design, not subject to production testing.

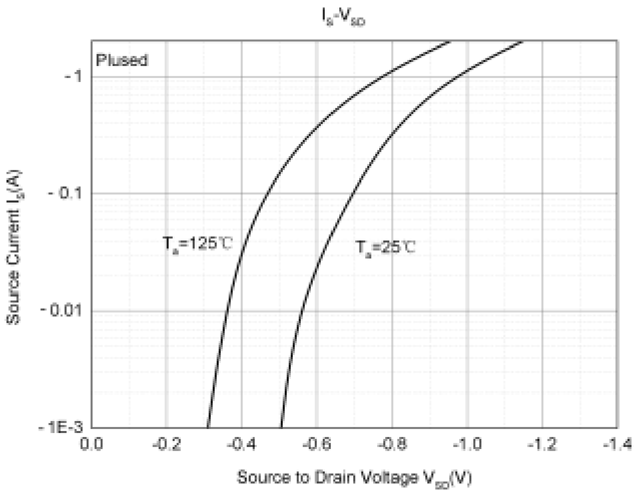
■ Typical Characteristics

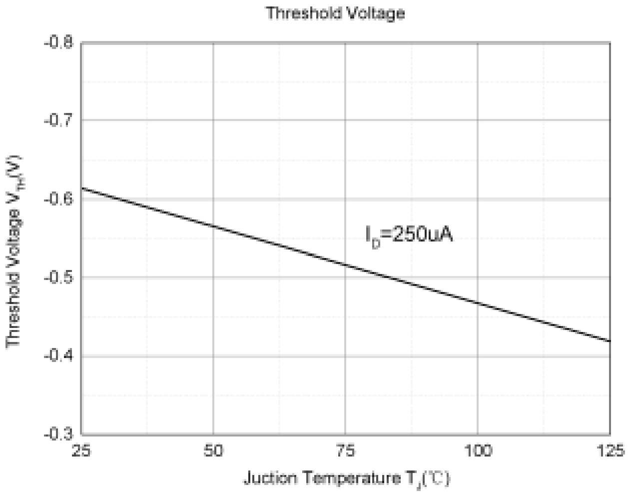




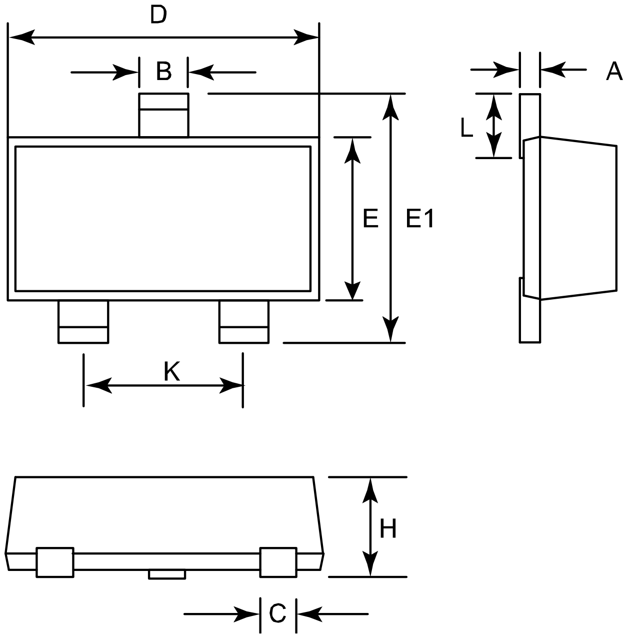






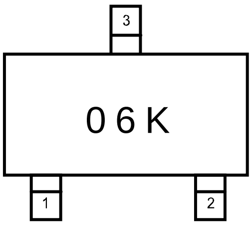


■ Outline Drawing SOT723



SYM	DIMENSIONS		
	MILLIMETERS		
	MIN	**NOM**	**MAX**
A	0.08		0.18
B	0.27		0.37
C	0.17		0.27
D	1.15	1.20	1.25
E	0.75	0.80	0.85
E1	1.15	1.20	1.25
K	0.75	0.80	0.85
L	0.25		0.30
H	0.43		0.55

Marking



Ordering information

Order code	Package	Base qty	Delivery mode
SE20P07M	SOT723	10k	Tape and reel

Disclaimer

The information presented in this document is for reference only. Shenzhen SSC Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, functionor designor otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safetydevices), SSC or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website http://www.sourcing-semi.com/, or consult your nearest SSC’s sales office for further assistance.