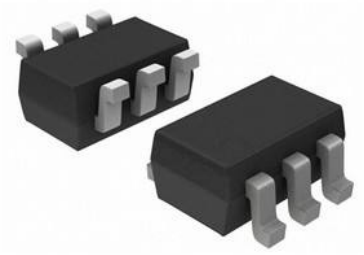
■ Description

■ The SEDE60N03S3 uses advanced Trench technology and designs to provide excellent RDS(ON) with low gate charge. This device is suitable for use in PWM, load switching and general purpose applications.

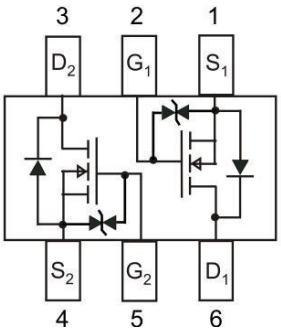


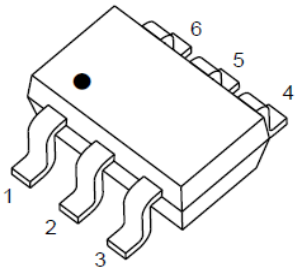
■ Features

■ High density cell design for Low RDS(on)
■ Voltage controlled small signal switch

V_{DSS}	$R_{DS(ON)}$ @V_{GS}= 10V	$R_{DS(ON)}$ @V_{GS}= 4.5V	I_D
60V	3Ω	4Ω	340mA

■ Schematic & PIN Configuration





SOT363

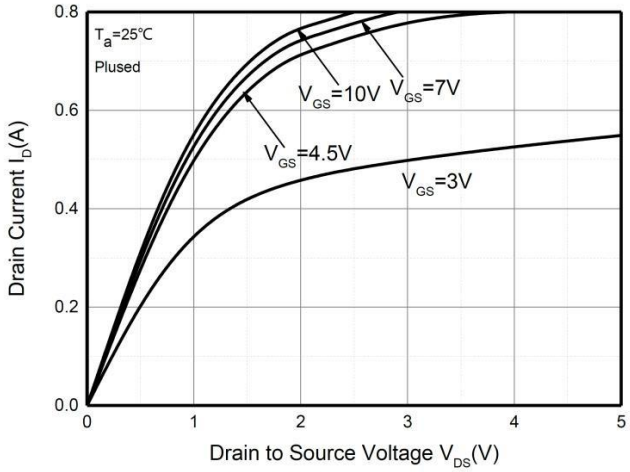
■ Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	60	V
Gate-Source Voltage	V_{GS}	±20	V
Continuous Drain Current	I_D	340	mA
Power Dissipation	P_D	150	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	833	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55~ +150	℃

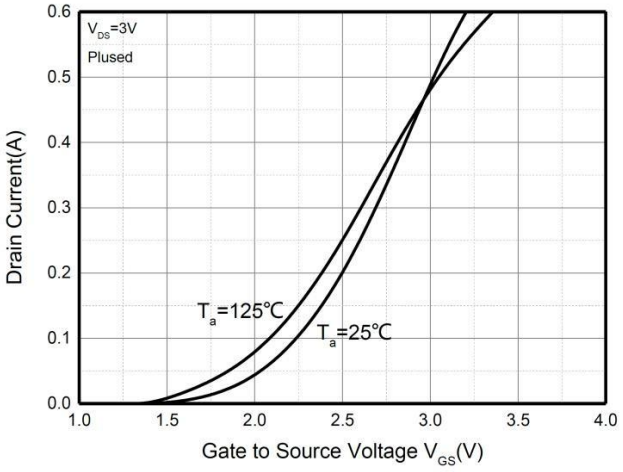
■ Electrical Characteristics (T_A = 25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Static Characteristics						
Drain-source breakdown voltage	$V_{(BR)DSS}$	V_{GS} = 0V, I_D =250μA	60			V
Zero gate voltage drain current	I_{DSS}	V_{DS} =60V,V_{GS} = 0V			1	uA
Gate-body leakage current	I_{GSS}	V_{GS} =±20V, V_{DS} = 0V			±10	μA
Gate threshold voltage	$V_{GS(th)}$	V_{DS} =V_{GS}, I_D =250μA	1	1.5	2.5	V
On-state drain current	$I_{D(ON)}$	V_{GS}=10V, V_{DS}=7V	500			mA
Drain-source on-resistance	$R_{DS(on)}$	V_{GS} =10V, I_D =500mA		1.3	3	Ω
		V_{GS} =4.5V, I_D =200mA		1.8	4	
		V_{GS} =3V, I_D =10mA			4.5	
Drain-source on-voltage	$V_{DS(on)}$	V_{GS} =10V, I_D =500mA			3	V
		V_{GS} =5V, I_D =50mA			0.375	
Dynamic characteristics						
Input Capacitance	Ciss	V_{DS}=25V,V_{GS}=0V,f=1MHz			50	pF
Output Capacitance	Coss				25	
Reverse Transfer Capacitance	Crss				5	
Switching Characteristics						
Turn-on delay time	$t_{d(on)}$	V_{DD}=25V,R_G=25Ω,R_L=50Ω, V_{GEN}=10V,I_D=500mA			20	ns
Turn-off delay time	$t_{d(off)}$				40	
Source-Drain Diode characteristics						
Diode Forward voltage	V_{SD}	V_{GS} =0V, I_S=200mA		0.82	1.3	V
Source Current Continuous	I_S				340	mA

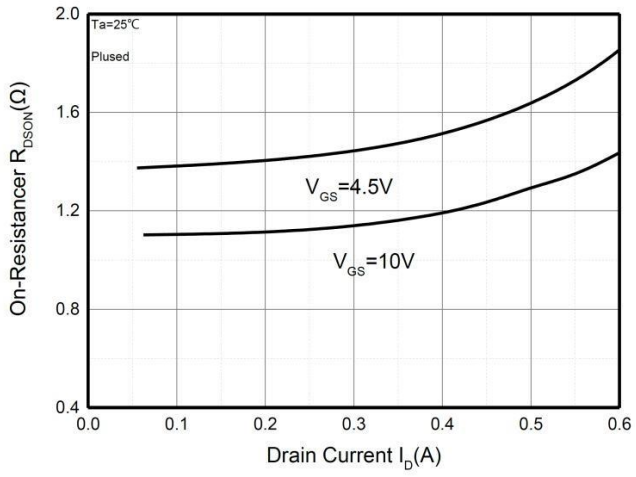
■ Typical Characteristics



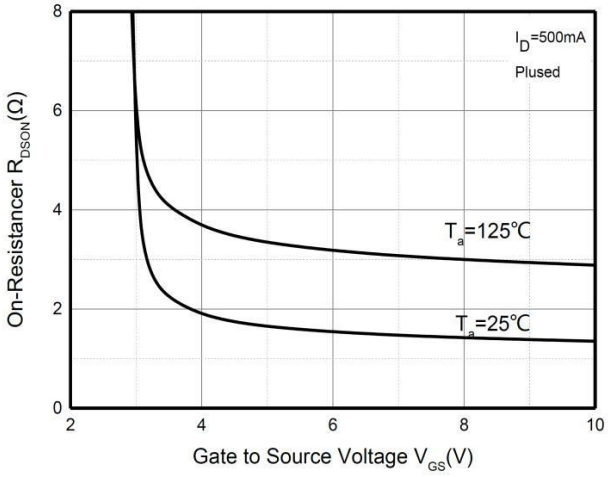
Output Characteristics



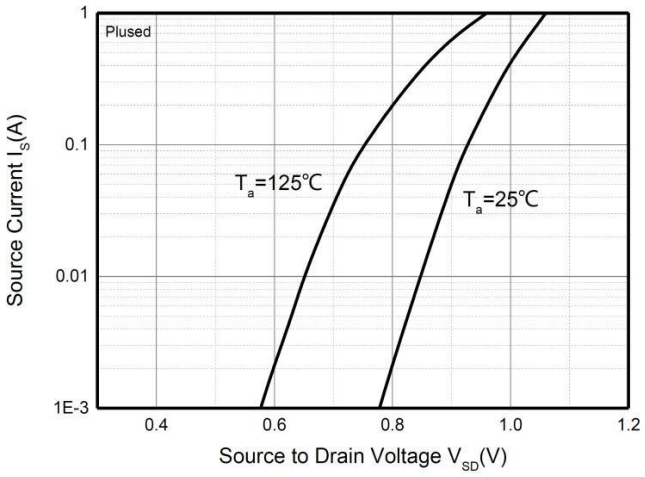
Transfer Characteristics



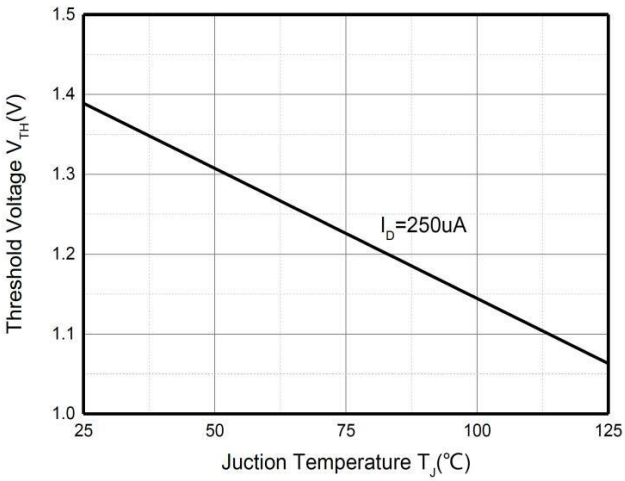
On-Resistance vs. Drain current



On-Resistance vs. Gate to Source Voltage

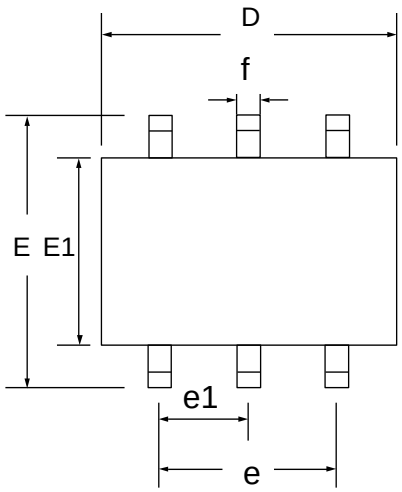


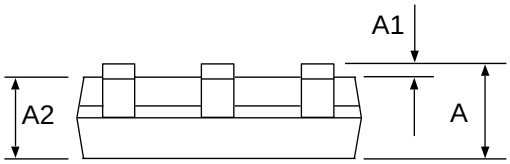
Source Current vs. Source to Drain Voltage



Threshold voltage vs. Junction temperature

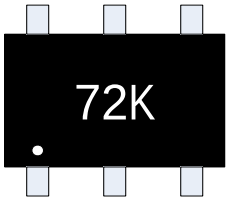
■ Outline Drawing SOT363





Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
D	2.000	2.200	0.079	0.087
E1	1.150	1.350	0.045	0.053
E	2.150	2.450	0.085	0.096
e1	0.650 TYP.		0.026 TYP.	
e	1.200	1.400	0.047	0.055
f	0.150	0.350	0.006	0.014

Marking



Ordering information

Order code	Package	Base qty	Delivery mode
SED60N03S3	SOT363	3k	Tape and reel

Disclaimer

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