

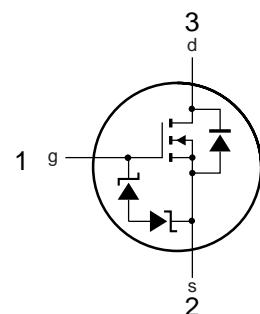
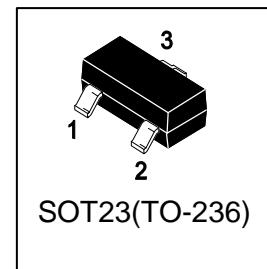
# SRK7002LT1G

## S-SRK7002LT1G

### N-Channel Small Signal MOSFET

#### 1. FEATURES

- Low on-Resistance.
- Fast switching speed.
- Low-voltage drive.
- Easily designed drive circuits.
- Easy to parallel.
- ESD Protected:2000V
- We declare that the material of product compliance with RoHS requirements and Halogen Free.
- S- prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.



#### 2. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
SRK7002LT1G	RK	3000/Tape&Reel
SRK7002LT3G	RK	10000/Tape&Reel

#### 3. MAXIMUM RATINGS( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Limits	Unit
Drain-Source Voltage	VDSS	60	V
Gate-Source Voltage	VGS	$\pm 20$	V
Drain current	Continuous	ID	mA
	Pulsed	IDP(Note 1)	A
Drain reverse current	Continuous	IDR	mA
	Pulsed	IDRP(Note 1)	A
Total power dissipation	PD(Note 2)	225	mW
Channel temperature	Tch	150	°C
Storage temperature	Tstg	-55~+150	°C

1.  $P_w \leq 10\mu\text{s}$ , Duty cycle  $\leq 1\%$

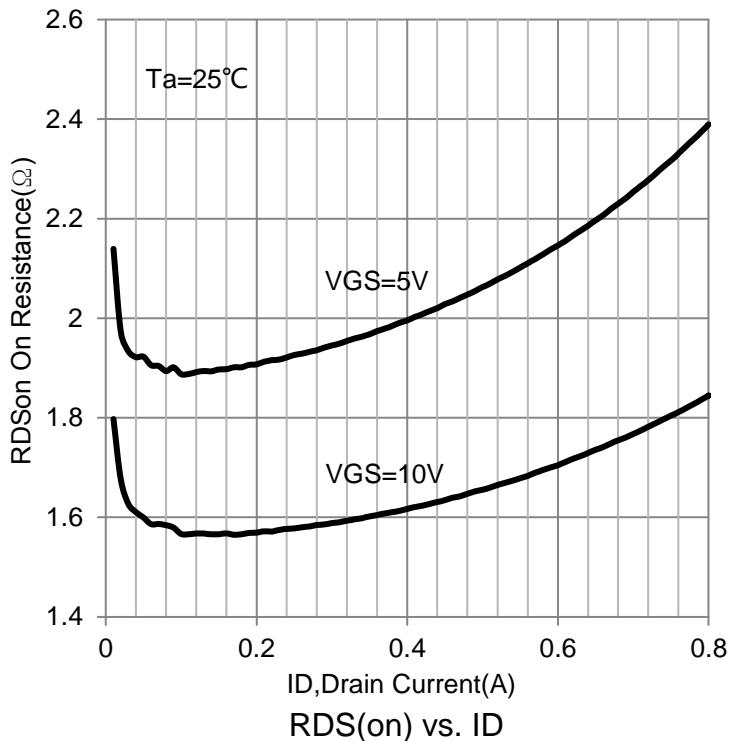
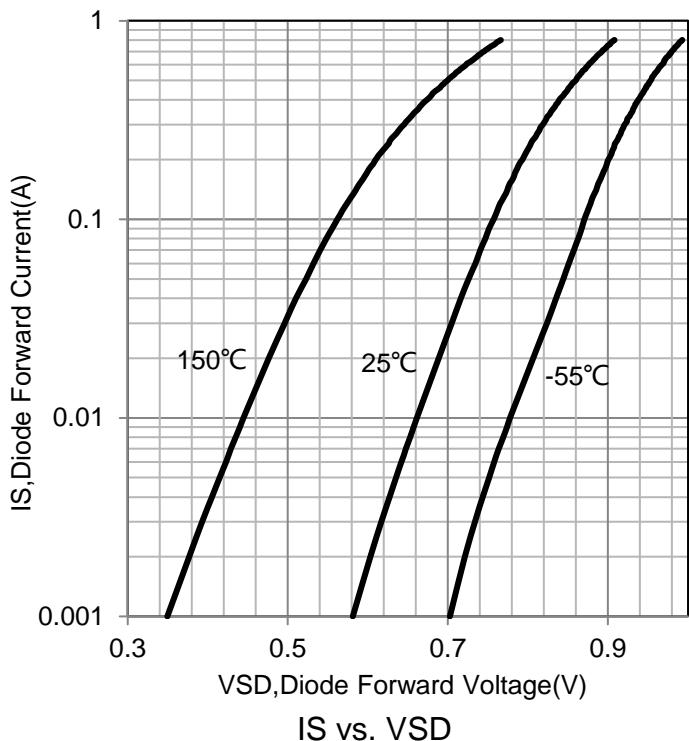
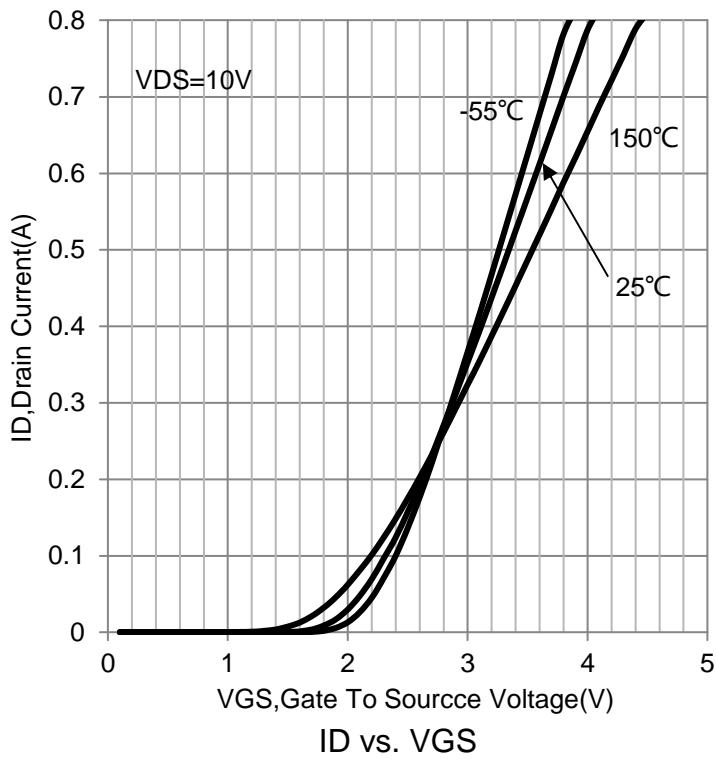
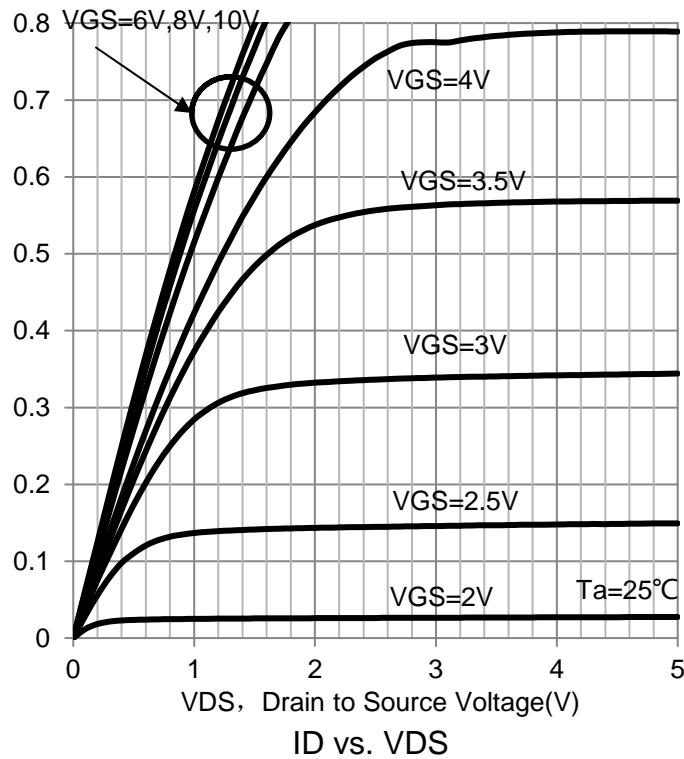
2. When mounted on a  $1 \times 0.75 \times 0.062$  inch glass epoxy board.

#### 4. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

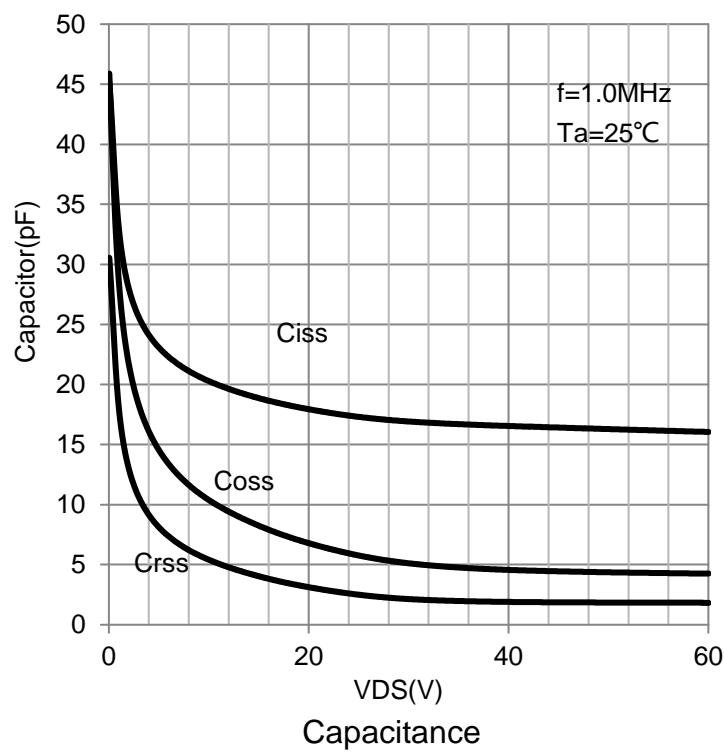
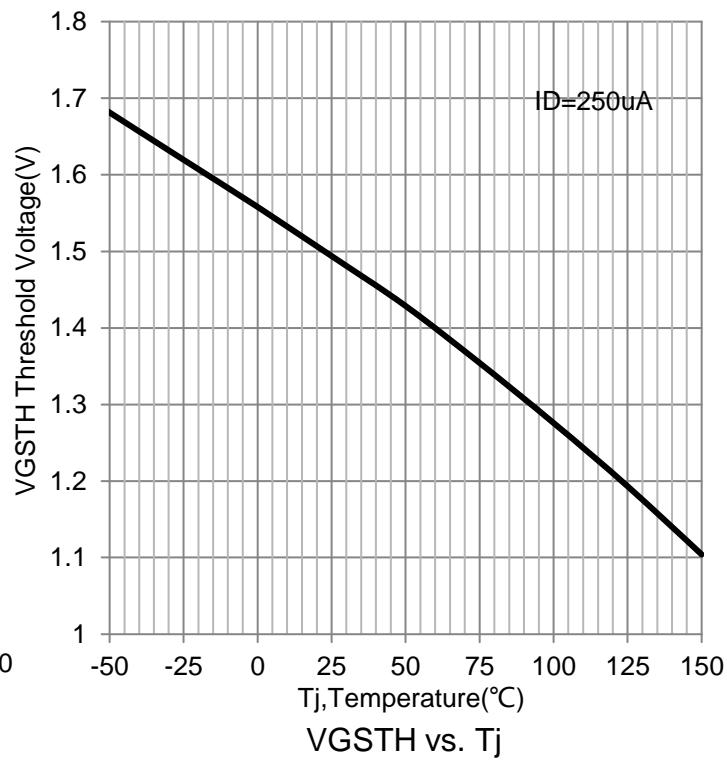
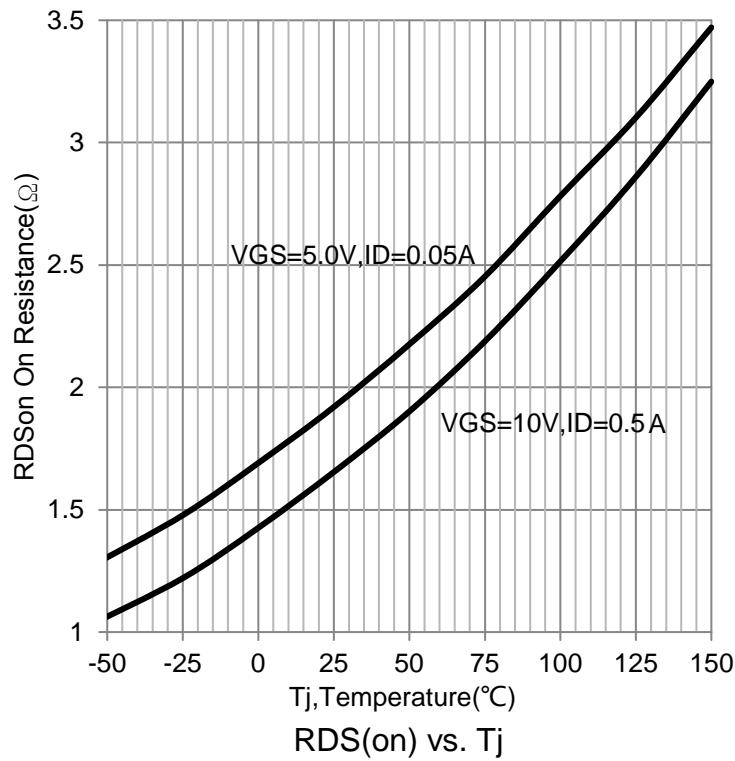
Characteristic	Symbol	Min.	Typ.	Max.	Unit
Gate-source leakage current (VGS =±20V, VDS =0V)	IGSS	-	-	±10	µA
Drain-source breakdown voltage (ID =10µA, VGS =0V)	V(BR)DSS	60	-	-	V
Zero gate voltage drain current (VDS =60V, VGS =0V)	IDSS	-	-	1	µA
Gate threshold voltage (VDS =VGS, ID =250µA)	VGS(th)	1	1.85	2.5	V
Drain-source on-state resistance (ID =0.5A, VGS =10V) (ID =0.05A, VGS =5V)	RDS(on)	-	-	7.5	Ω
Forward transfer admittance (VDS =10V, ID =0.2A)	Yfs	80	-	-	mS
Input capacitance	(VDS =25V,VGS =0V,f=1MHz)	Ciss	-	25	50
Output Capacitance		Coss	-	10	25
Reverse Transfer Capacitance		Crss	-	3	5
Turn-On Delay Time	(ID =200mA, VDD =30V,VGS =10V,RL =150 Ω ,RGS =10Ω )	td(on)	-	3.5	-
Turn-Off Delay Time		td(off)	-	40	-

3. PW ≤300µs, Duty cycle≤1%

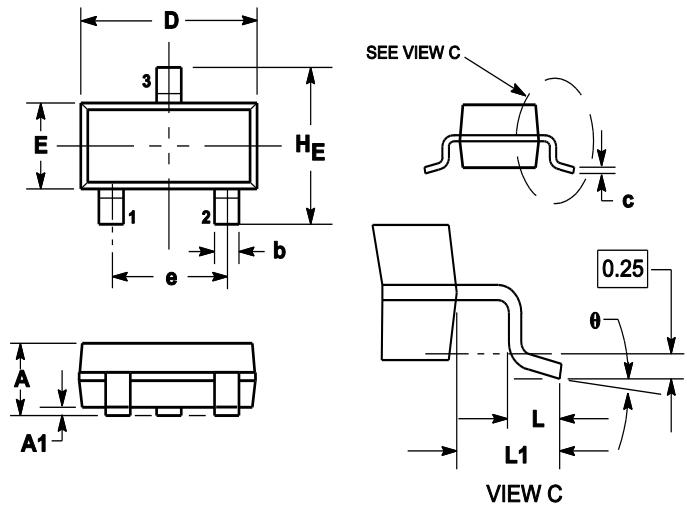
## 5.ELECTRICAL CHARACTERISTICS CURVES



## 5.ELECTRICAL CHARACTERISTICS CURVES (Con.)



## 6. OUTLINE AND DIMENSIONS

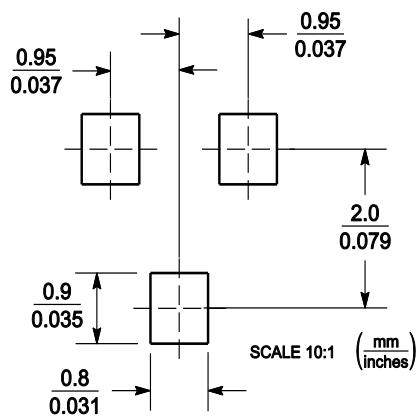


Notes:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.

DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.89	1	1.11	0.035	0.04	0.044
A1	0.01	0.06	0.1	0.001	0.002	0.004
b	0.37	0.44	0.5	0.015	0.018	0.02
c	0.09	0.13	0.18	0.003	0.005	0.007
D	2.80	2.9	3.04	0.11	0.114	0.12
E	1.20	1.3	1.4	0.047	0.051	0.055
e	1.78	1.9	2.04	0.07	0.075	0.081
L	0.10	0.2	0.3	0.004	0.008	0.012
L1	0.35	0.54	0.69	0.014	0.021	0.029
H <sub>E</sub>	2.10	2.4	2.64	0.083	0.094	0.104
θ	0°	---	10°	0°	---	10°

## 7. SOLDERING FOOTPRINT



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