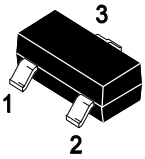
SRK7002LT1G
S-SRK7002LT1G

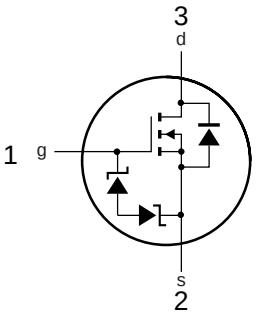
N-Channel Small Signal MOSFET



SOT23(TO-236)

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(Ta = 25ºC)

Parameter		Symbol	Limits	Unit
Drain-Source Voltage		VDSS	60	V
Gate-Source Voltage		VGS	±20	V
Drain current	Continuous	ID	115	mA
	Pulsed	IDP(Note 1)	0.8	A
Drain reverse current	Continuous	IDR	115	mA
	Pulsed	IDRP(Note 1)	0.8	A
Total power dissipation		PD(Note 2)	225	mW
Channel temperature		Tch	150	℃
Storage temperature		Tstg	-55~+150	℃

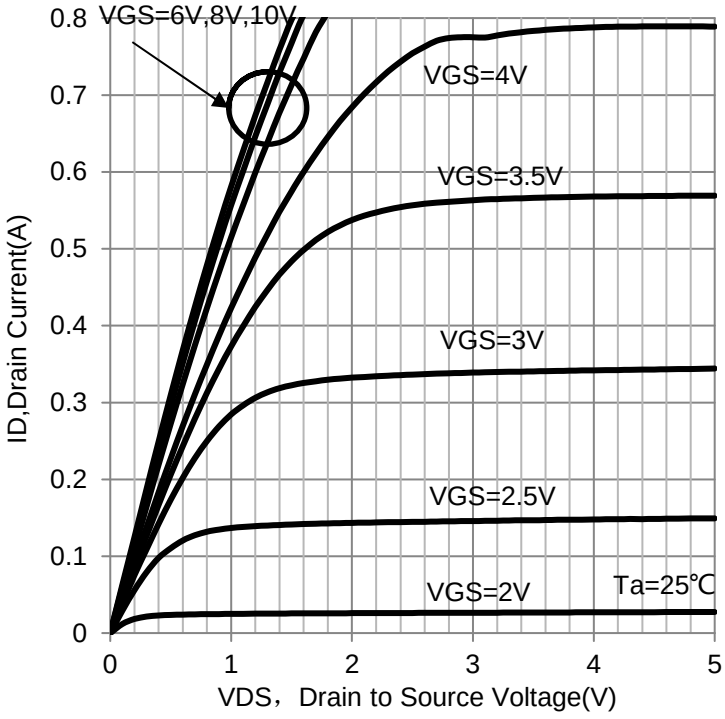
1. Pw≤10μs, Duty cycle≤1%
2. When mounted on a 1×0.75×0.062 inch glass epoxy board.

4. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

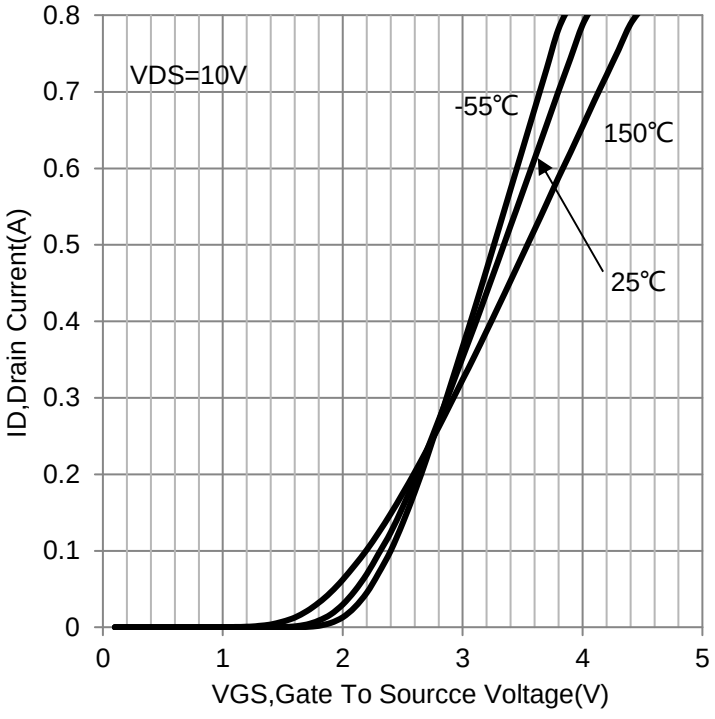
Characteristic		Symbol	Min.	Typ.	Max.	Unit
Gate-source leakage current (VGS =±20V, VDS =0V)		IGSS	-	-	±10	μA
Drain-source breakdown voltage (ID =10μA, VGS =0V)		V(BR)DSS	60	-	-	V
Zero gate voltage drain current (VDS =60V, VGS =0V)		IDSS	-	-	1	μA
Gate threshold voltage (VDS =VGS, ID =250μA)		VGS(th)	1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

3. PW ≤300μs, Duty cycle≤1%

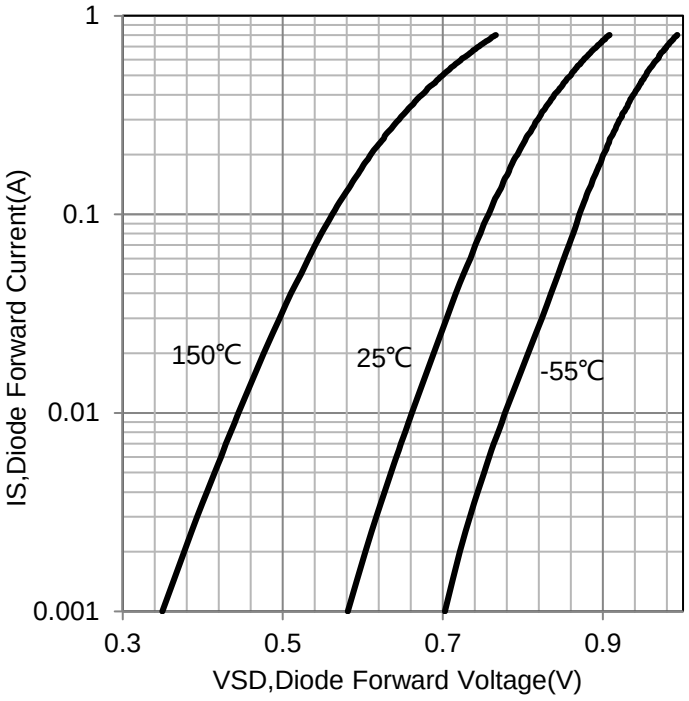
5.ELECTRICAL CHARACTERISTICS CURVES



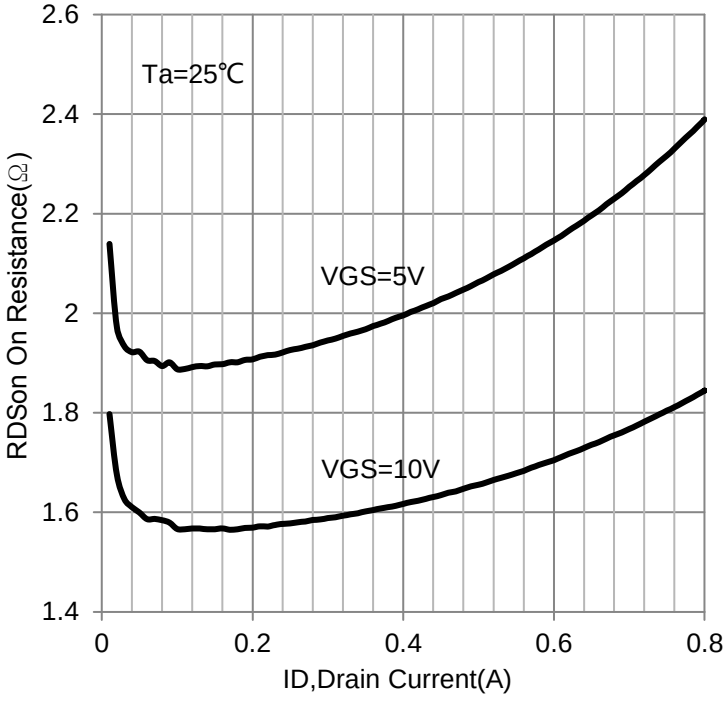
ID vs. VDS



ID vs. VGS

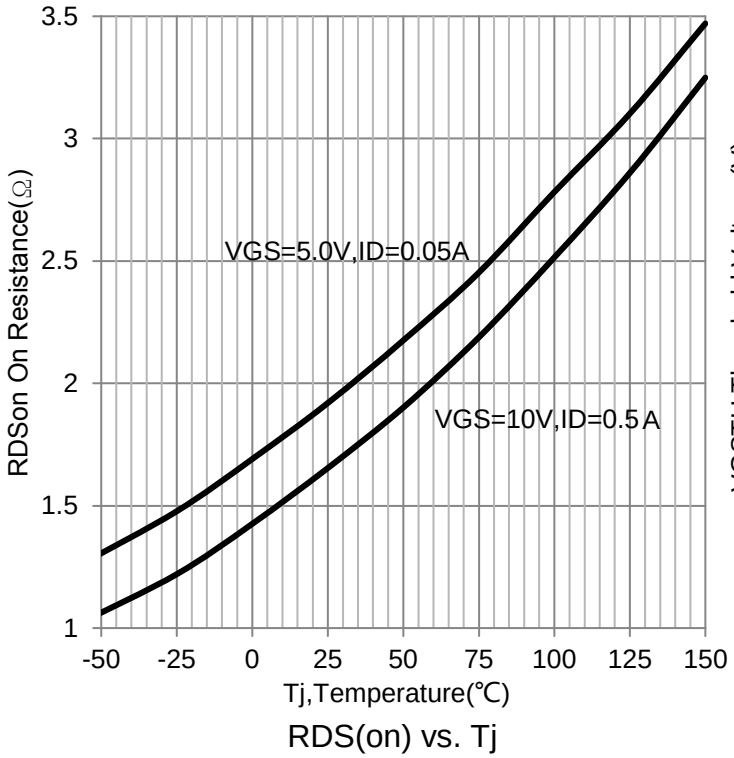


IS vs. VSD

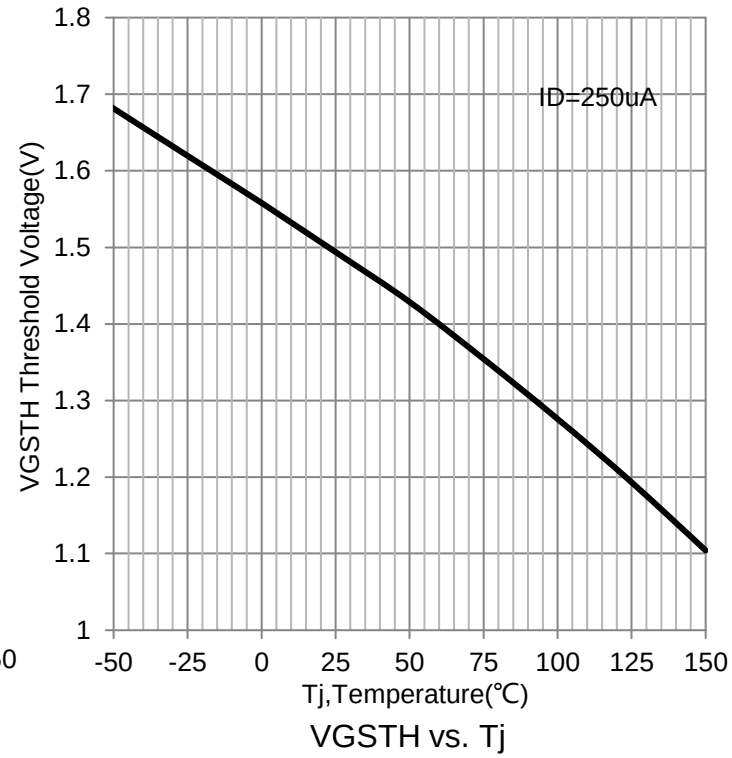


RDS(on) vs. ID

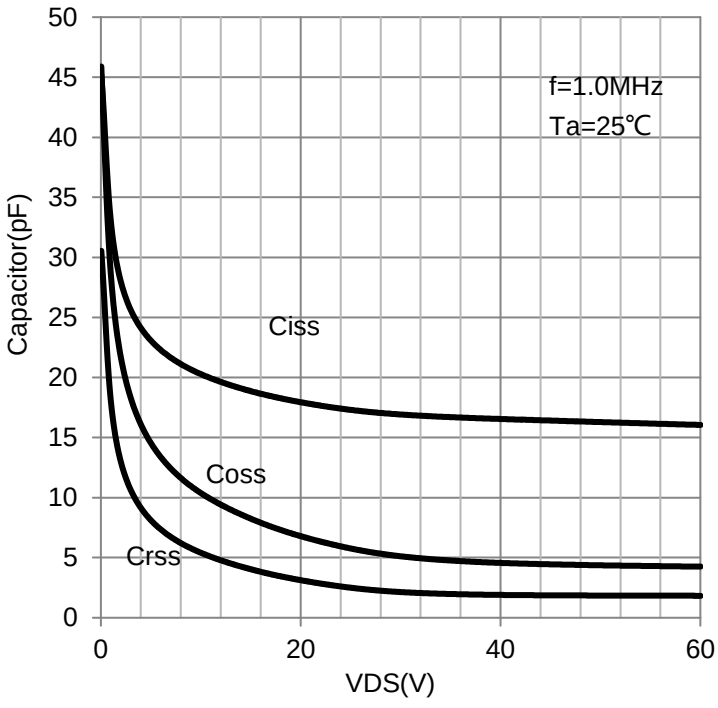
5.ELECTRICAL CHARACTERISTICS CURVES（Con.）



RDS(on) vs. Tj

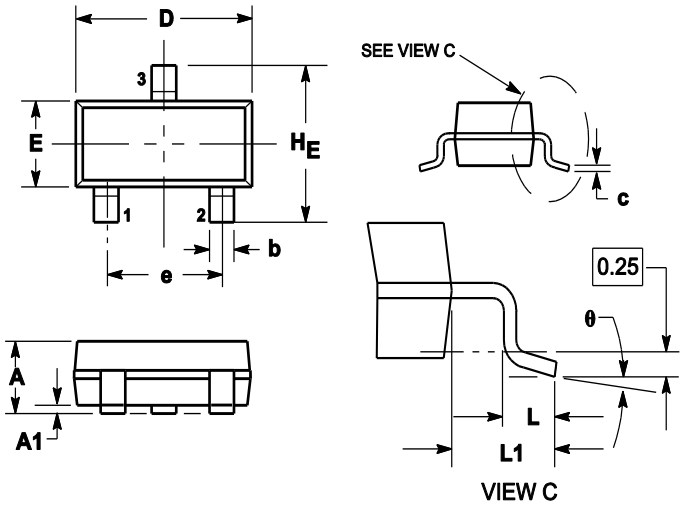


VGSTH vs. Tj



Capacitance

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.

	MILLIMETERS			INCHES		
DIM	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_E	2.10	2.4	2.64	0.083	0.094	0.104
θ	0°	---	10°	0°	---	10°

7.SOLDERING FOOTPRINT