2SK3255LS

N- Channel MOS Silicon FET
Very High-Speed Switching Applications

TENTATIVE

Features and Applications

¥ Low ON-state resistance.
¥ Low Qg.

Absolute Maximum Ratings / Ta=25°C

			unit
Drain to Source Voltage	VDSS	900	V
Gate to Source Voltage	VGSS	–30	V
Drain Current(DC)	ID*	5	A
Drain Current(Pulse)	IDP	15	A
Allowable power Dissipation	PD (TC=25¡C)	35	W
Channel Temperature	Tch	150	¡C
Storage Temperature	Tstg	–55 to –150	¡C

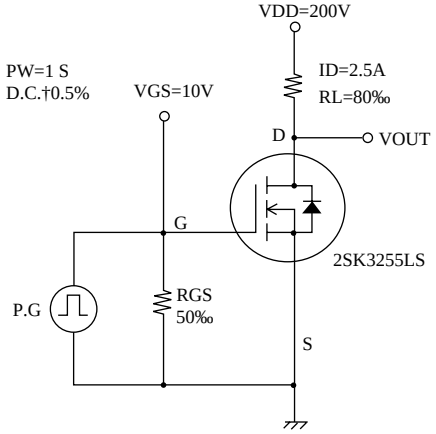
*) : Chip Performance Shown

Electrical Characteristics / Ta=25°C

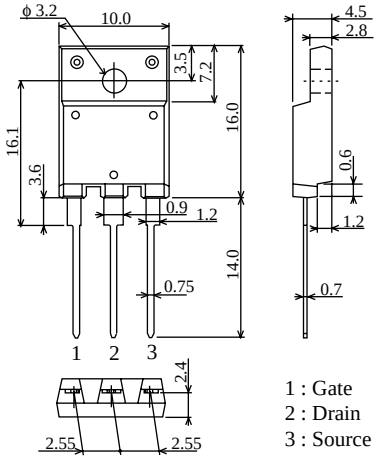
			min	typ	max	unit
Drain to Source Breakdown Voltage	V(BR)DSS	ID=1mA , VGS=0	900			V
Zero Gate Voltage Drain Current	IDSS	VDS=900V , VGS=0			250	A
Gate to Source Leakage Current	IGSS	VGS=–30V , VDS=0			–100	nA
Cutoff Voltage	VGS(off)	VDS=10V , ID=1mA	2.5		3.5	V
Forward Transfer Admittance	| yfs |	VDS=10V , ID=2.5A	2.4	4.0		S
Static Drain to Source On State Resistance	RDS(on)	ID=2.5A , VGS=10V		2.1	2.8	‰
Input Capacitance	Ciss	VDS=20V , f=1MHz		1100		pF
Output Capacitance	Coss	VDS=20V , f=1MHz		115		pF
Reverse Transfer Capacitance	Crss	VDS=20V , f=1MHz		28		pF
Total Gate Charge	Qg	VDS=200V , ID=2.5A VGS=20V		44		nC
Turn-ON Delay Time	td(on)	See Specified Test Circuit		21		ns
Rise Time	tr			43		ns
Turn-OFF Delay Time	td(off)			160		ns
Fall Time	tf			47		ns
Diode Forward Voltage	VSD	IS=2.5A , VGS = 0			1.5	V

(Note) Be careful in handling the2SK3255LS because it has no protection diode between gate and source.

Switching Time Test Circuit



Package Dimensions TO-220FI(LS) (unit:mm)



1 : Gate
2 : Drain
3 : Source

Specifications and information herin are subject to change without notice.

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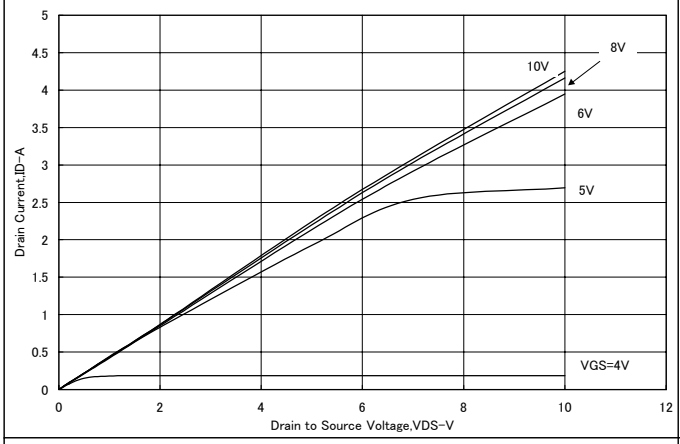
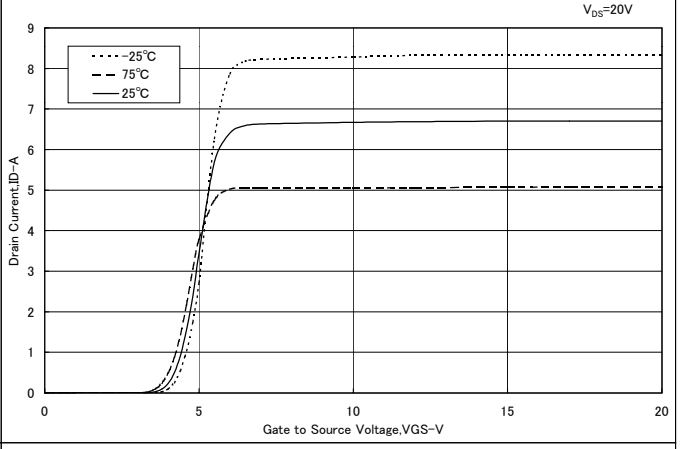
2SK3255LS

2SK3255LS ID - VDS



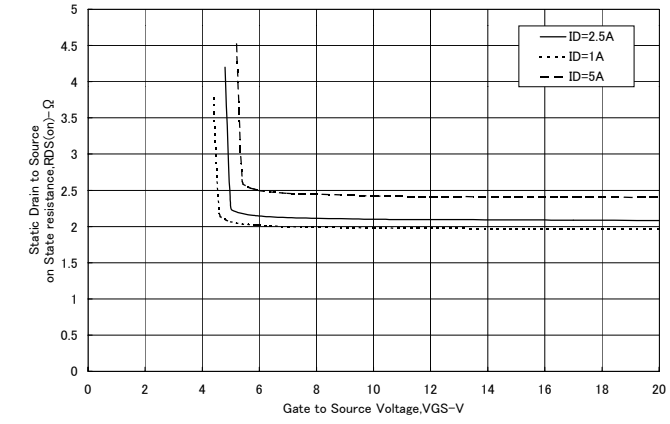
2SK3255LS ID - VGS

V_{DS}=20V

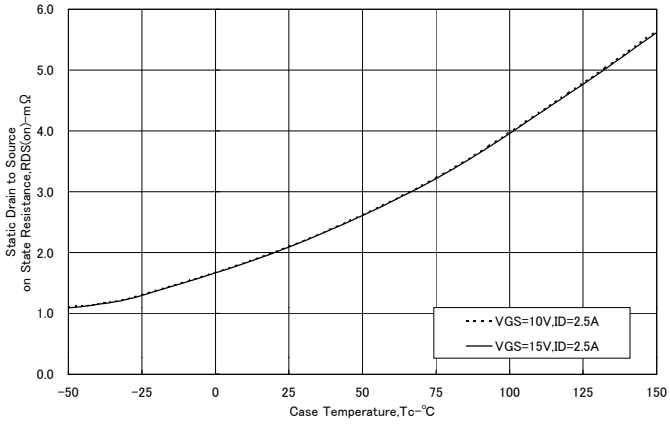


2SK3255LS RDS(on)-VGS

T_C=25℃

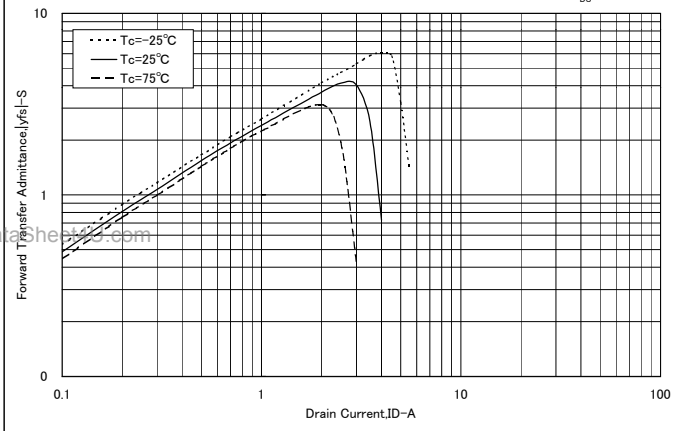


2SK3255LS RDS(on)-Tc



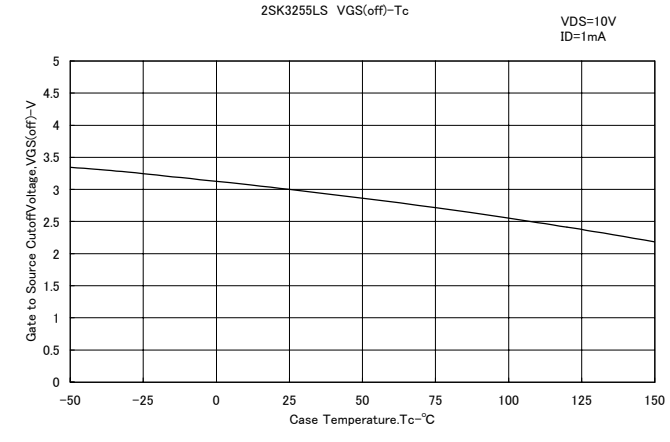
2SK3255LS |yfs|-ID

V_{DS}=10V



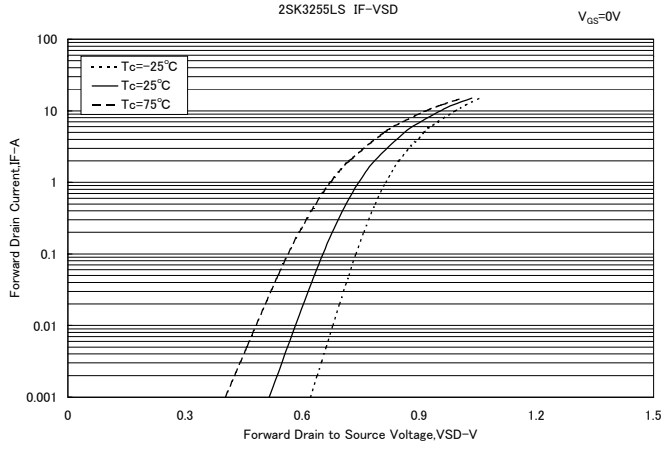
2SK3255LS VGS(off)-Tc

VDS=10V
ID=1mA



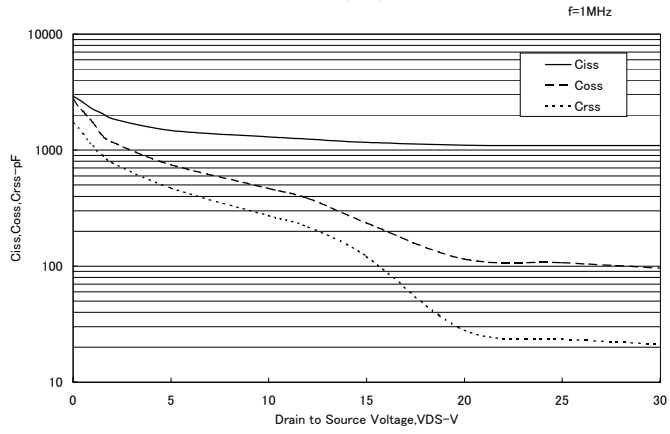
2SK3255LS IF-VSD

V_{GS}=0V



2SK3255LS Ciss,Coss,Crss-VDS

f=1MHz



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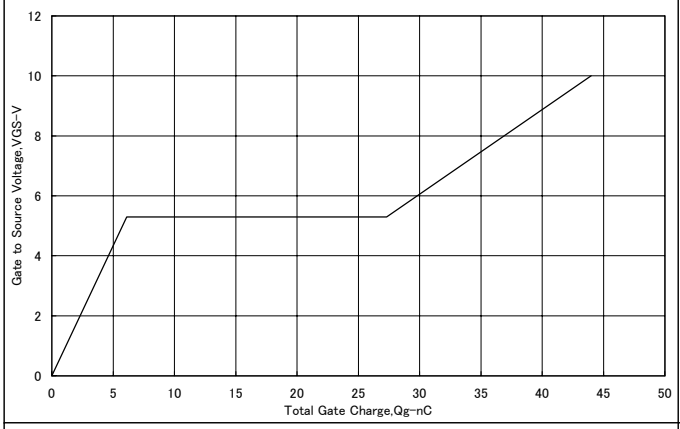
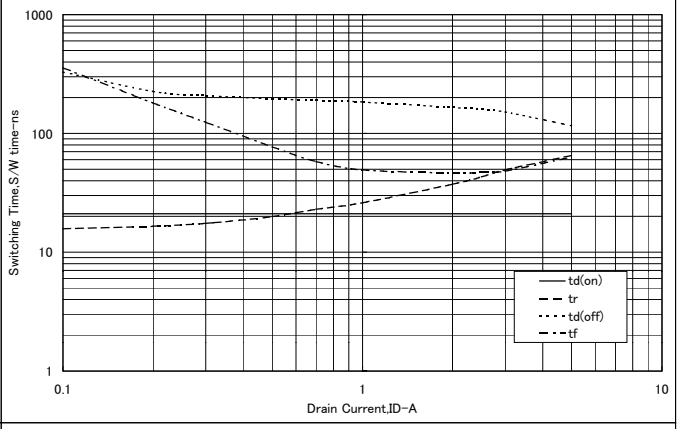
2SK3255LS Qg -VGS

VDS=200V
ID=2.5A

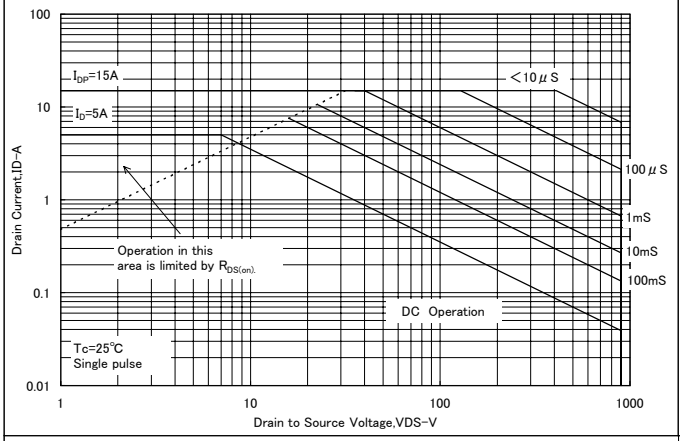


2SK3255LS S/W time-ID

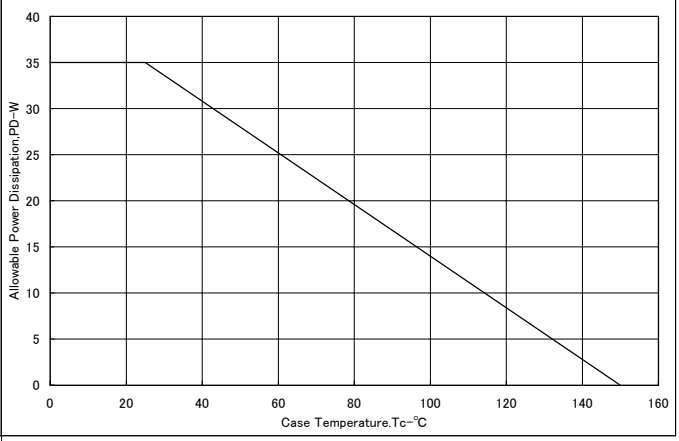
VDD=200V
VGS=10V



2SK3255LS ASO



PD - Tc



PD - Ta