Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain to Source Breakdown Voltage	$V_{(BR)DSS}$	I_D=10mA, V_{GS}=0V	650			V
Zero-Gate Voltage Drain Current	I_{DSS}	V_{DS}=520V, V_{GS}=0V			100	μA
Gate to Source Leakage Current	I_{GSS}	V_{GS}=±30V, V_{DS}=0V			±100	nA
Cutoff Voltage	$V_{GS}(off)$	V_{DS}=10V, I_D=1mA	3		5	V
Forward Transfer Admittance	| yfs |	V_{DS}=10V, I_D=5.5A	3.3	6.5		S
Static Drain to Source On-State Resistance	$R_{DS}(on)$	I_D=5.5A, V_{GS}=10V		0.65	0.85	Ω
Input Capacitance	Ciss	V_{DS}=30V, f=1MHz		1000		pF
Output Capacitance	Coss			172		pF
Reverse Transfer Capacitance	Crss			36		pF
Turn-ON Delay Time	$t_d(on)$	See specified Test Circuit.		24		ns
Rise Time	t_r			58		ns
Turn-OFF Delay Time	$t_d(off)$			117		ns
Fall Time	t_f			40		ns
Total Gate Charge	Qg	V_{DS}=200V, V_{GS}=10V, I_D=11A		37.6		nC
Gate to Source Charge	Qgs			6.8		nC
Gate to Drain “Miller” Charge	Qgd			17.6		nC
Diode Forward Voltage	V_{SD}	I_S=11A, V_{GS}=0V		0.9	1.2	V

Fig.1 Unclamped Inductive Switching Test Circuit

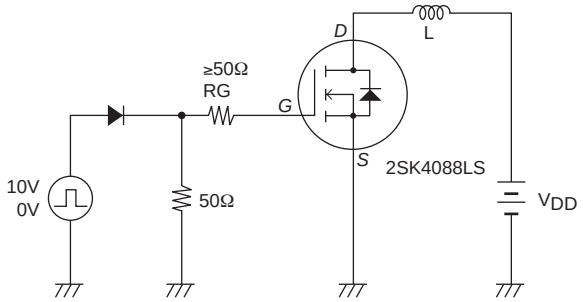
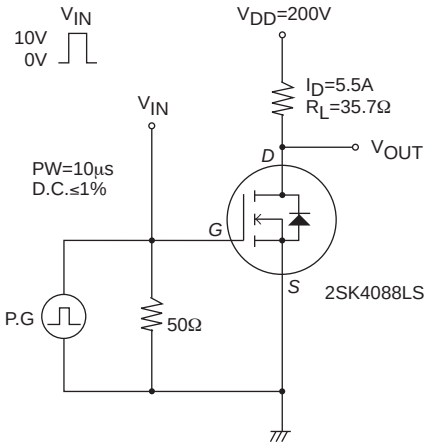
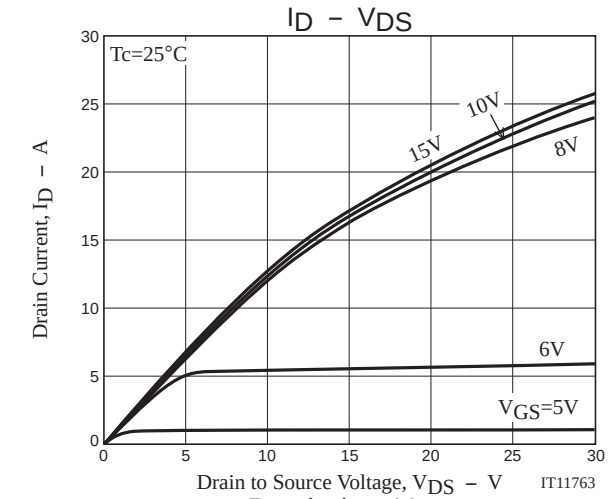
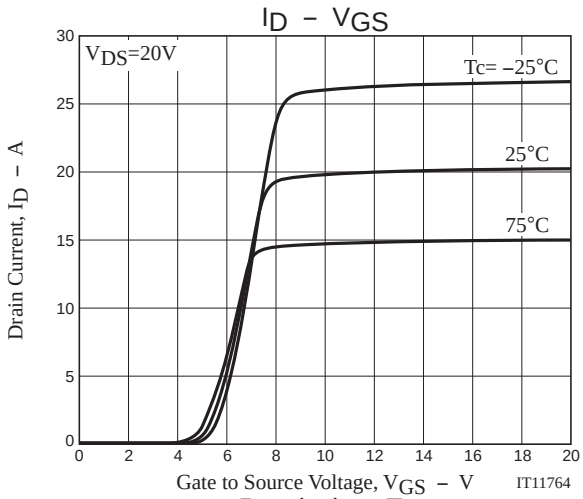
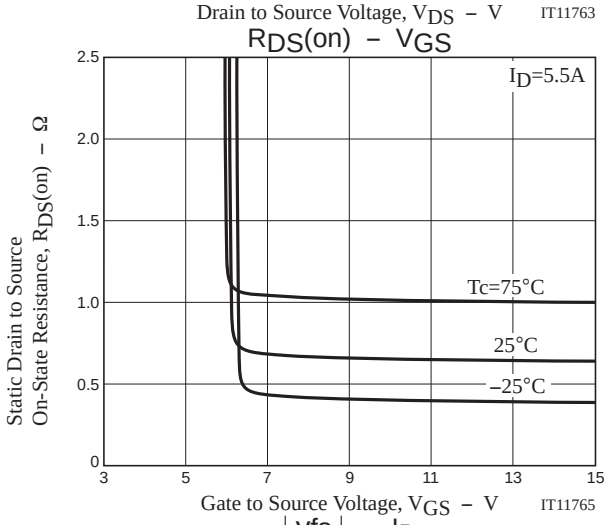


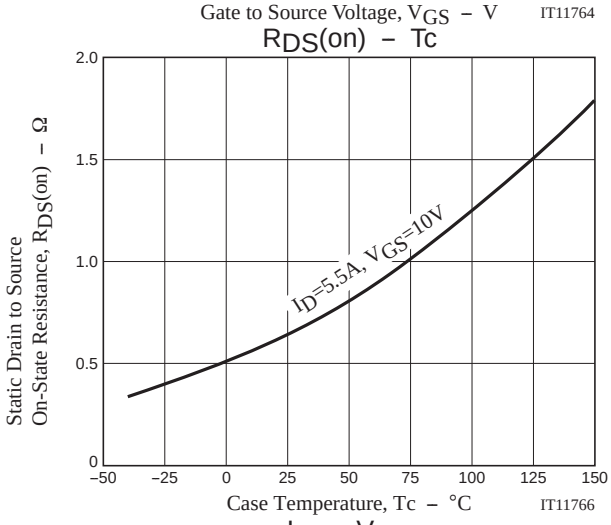
Fig.2 Switching Time Test Circuit

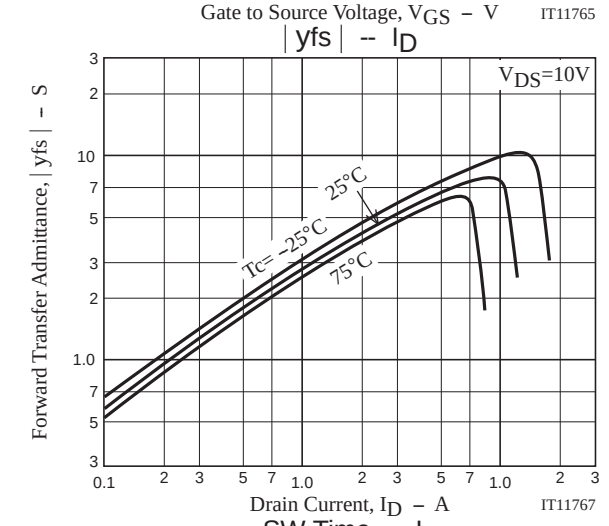


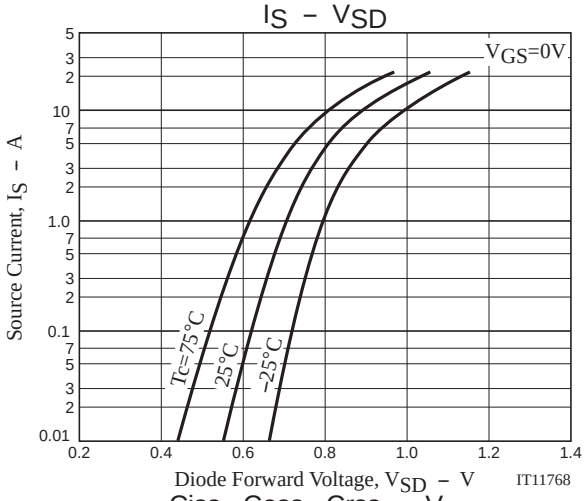


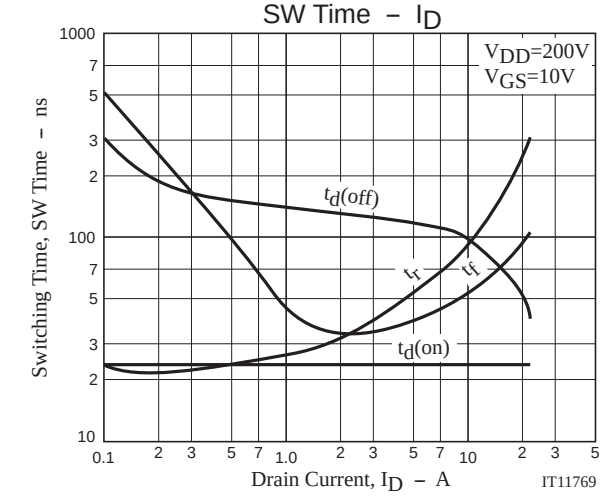


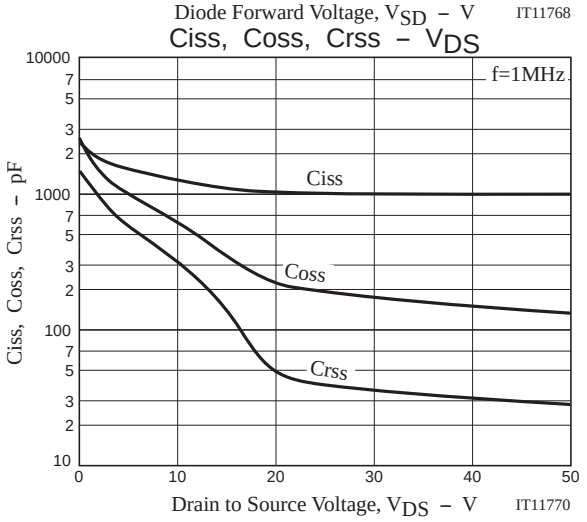


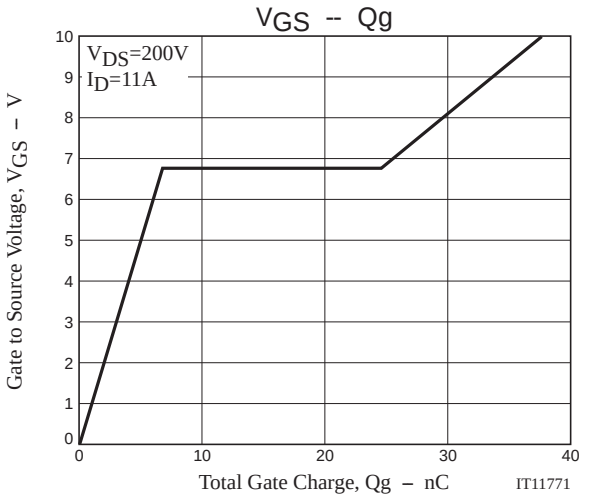


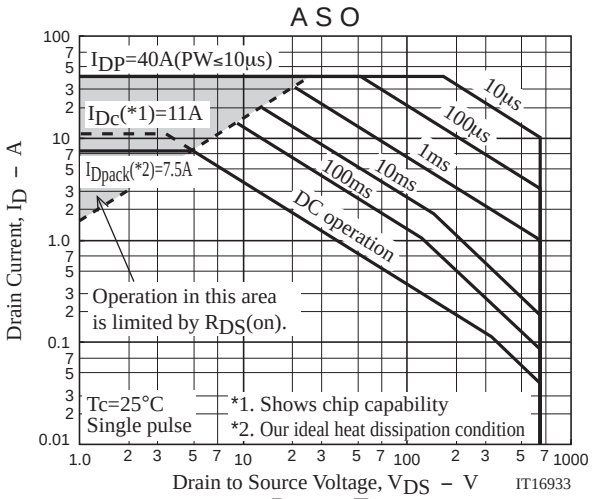


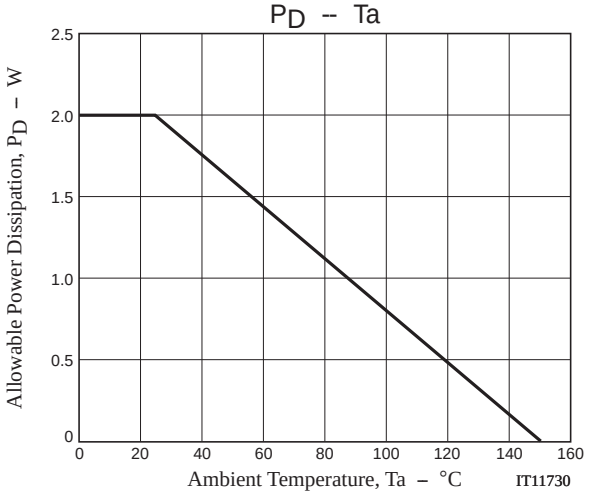


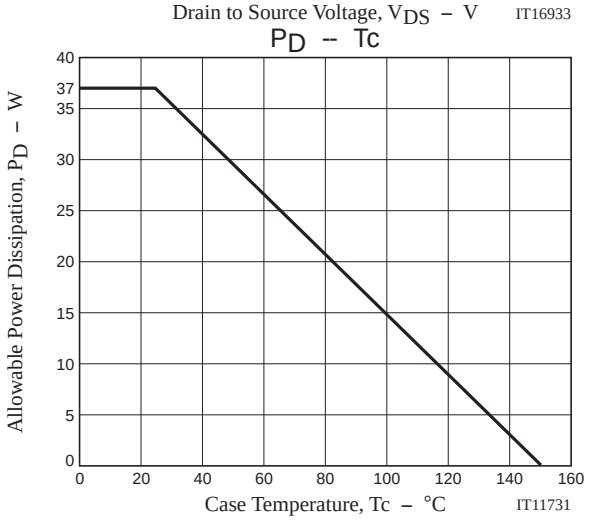


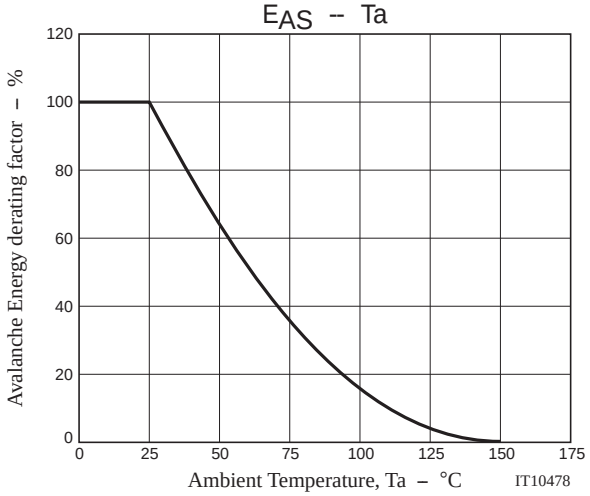












Magazine Specification

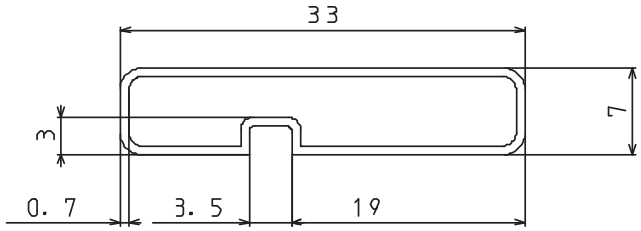
2SK4088LS-1E

1. Packing Format

Package Name	Magazine Name	Maximum Number of devices contained (pcs)			Packing format	
		Magazine	Inner box	Outer box	Inner BOX	Outer BOX
TO-220F-3FS	TO-220F	50	1,000	4,000	SPD-0V0001 20 magazines contained Dimensions:mm (external) 568×150×55	SPT-081029 4 inner boxes contained Dimensions:mm (external) 590×225×178

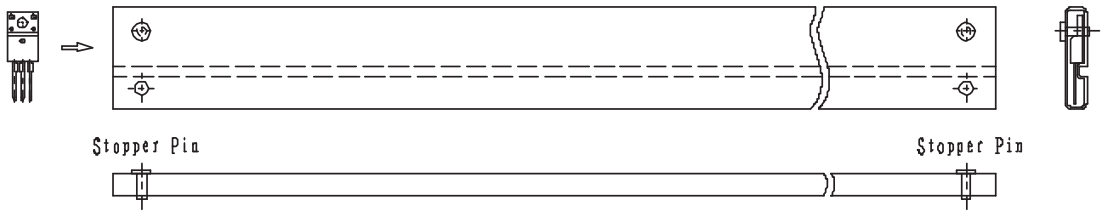
2. Magazine dimensions

(unit:mm)

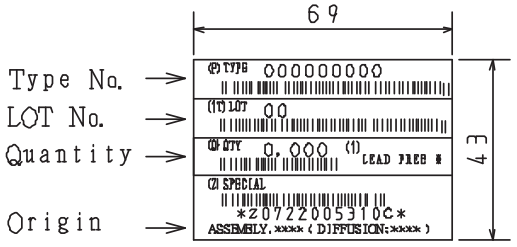


Tolerance=±0.3mm
Thickness=0.7±0.2mm
Length =532.5±2mm
Material =PVC (Antistatic treatment)

3. Storage method to magazine

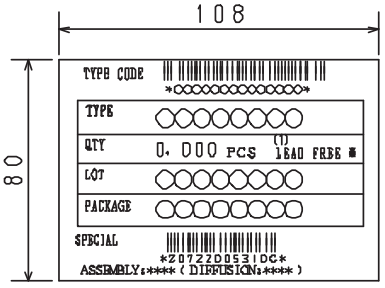


4. Inner box label (unit:mm)



5. Outer box label (unit:mm)

It is a label at the time of factory shipments.
The form of a label may change in physical distribution process.



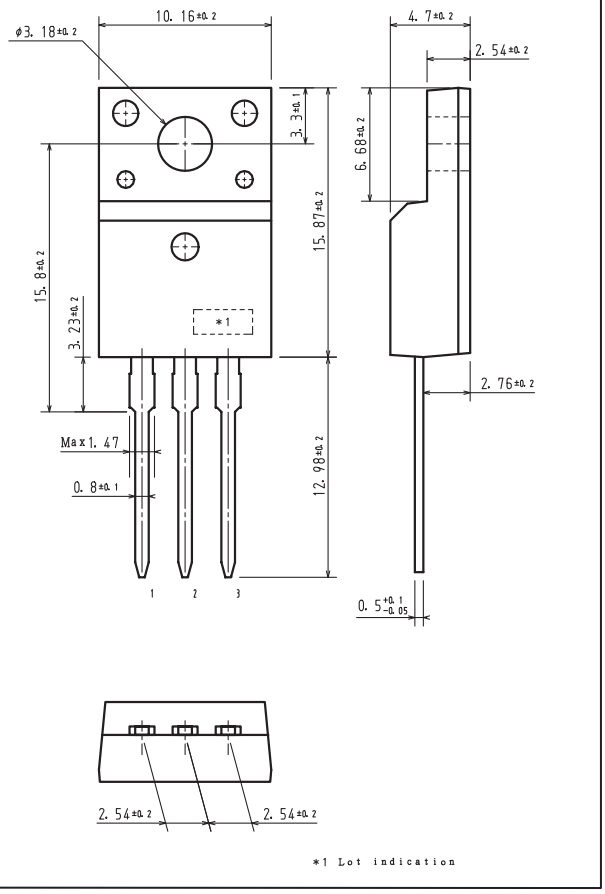
NOTE (1)
The LEAD FREE ※ description shows that the surface treatment of the terminal is lead free.

Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A

Outline Drawing

2SK4088LS-1E

Mass (g)	Unit
1.8 * For reference	mm



Note on usage : Since the 2SK4088LS is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.