

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D=1mA, V_{GS}=0V$	60			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS}=60V, V_{GS}=0V$			1	μA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS}=16V, V_{DS}=0V$			± 10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS}=10V, I_D=1mA$	1.2		2.6	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS}=10V, I_D=50A$	45	75		S
Static Drain-to-Source On-State Resistance	$R_{DS(on)1}$	$I_D=50A, V_{GS}=10V$		3.8	5.0	$m\Omega$
	$R_{DS(on)2}$	$I_D=50A, V_{GS}=4V$		4.9	7.0	$m\Omega$
Input Capacitance	C_{iss}	$V_{DS}=20V, f=1MHz$		12500		pF
Output Capacitance	C_{oss}			1200		pF
Reverse Transfer Capacitance	C_{rss}			950		pF
Turn-ON Delay Time	$t_d(on)$	See Fig.2		80		ns
Rise Time	t_r			630		ns
Turn-OFF Delay Time	$t_d(off)$			860		ns
Fall Time	t_f			750		ns
Total Gate Charge	Q_g	$V_{DS}=30V, V_{GS}=10V, I_D=100A$		220		nC
Gate-to-Source Charge	Q_{gs}			30		nC
Gate-to-Drain "Miller" Charge	Q_{gd}			55		nC
Diode Forward Voltage	V_{SD}	$I_S=100A, V_{GS}=0V$		1.0	1.2	V

Fig.1 Avalanche Resistance Test Circuit

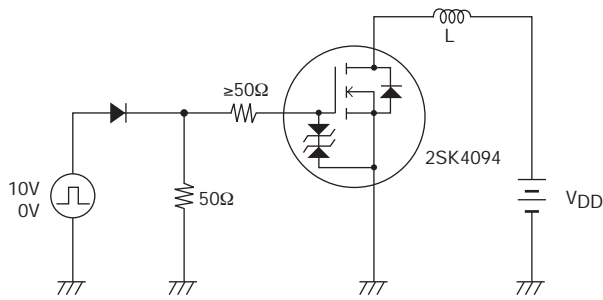
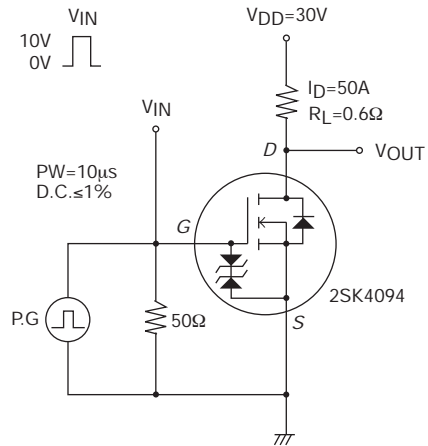
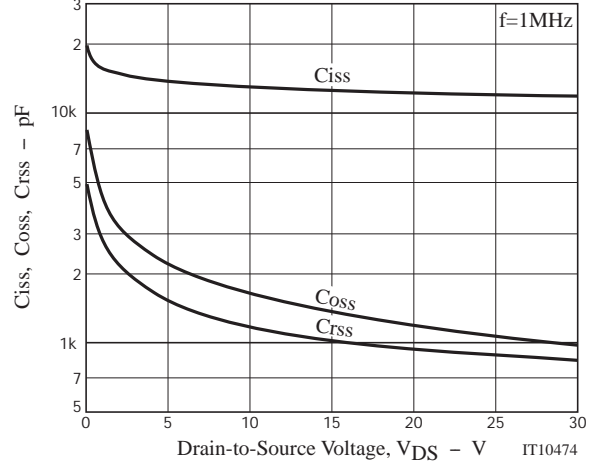
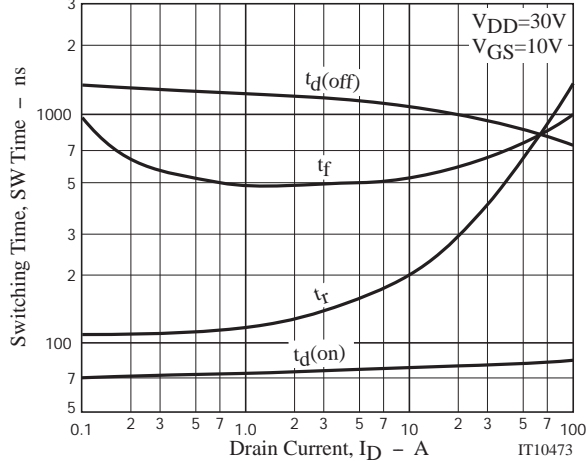
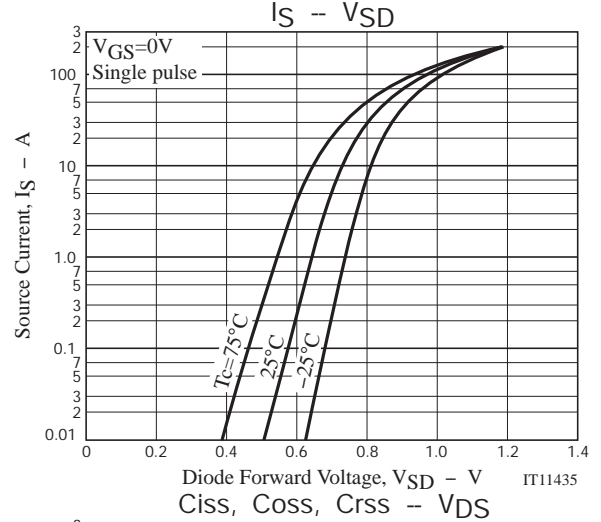
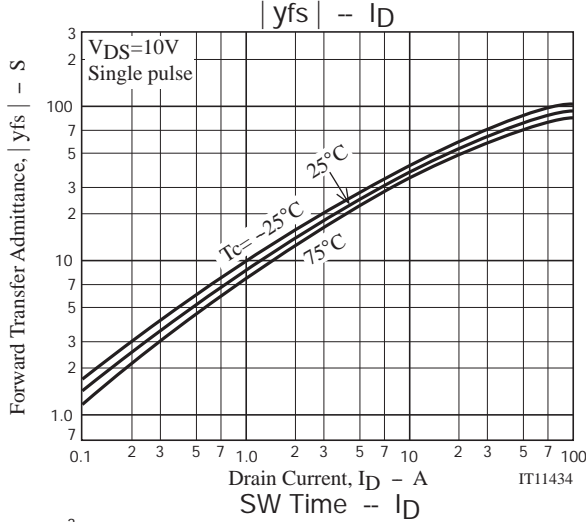
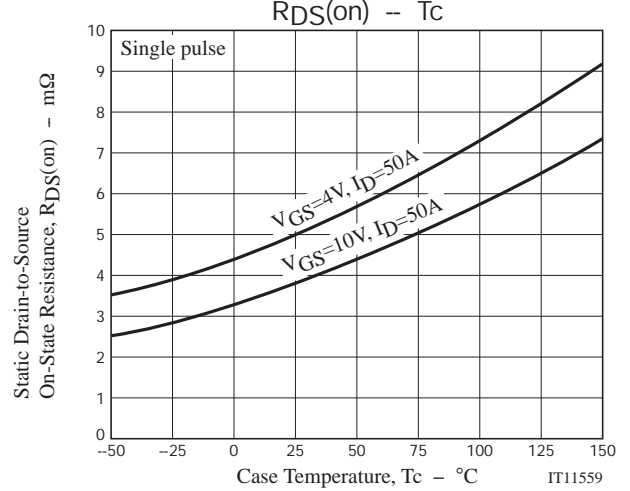
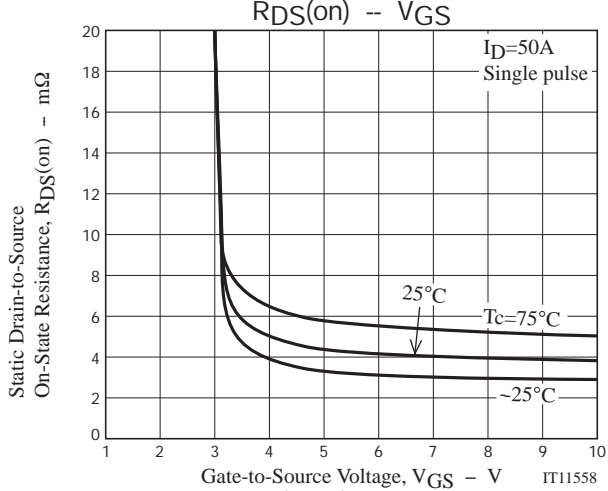
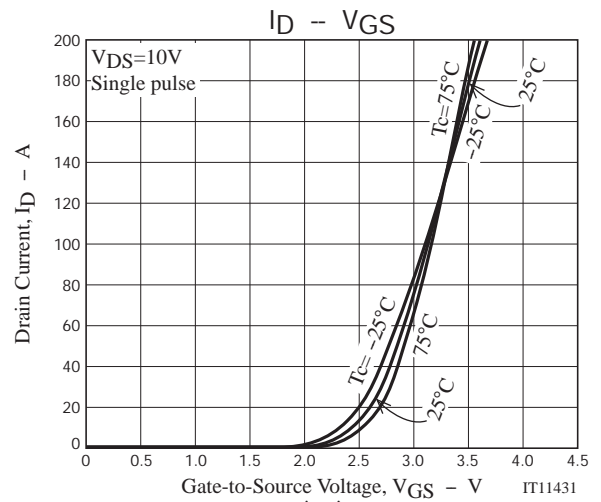
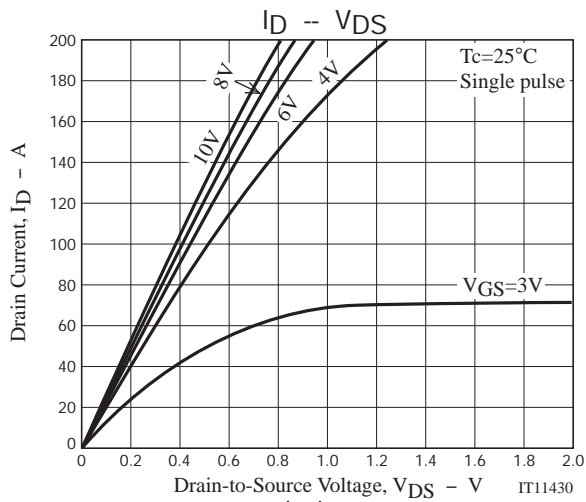


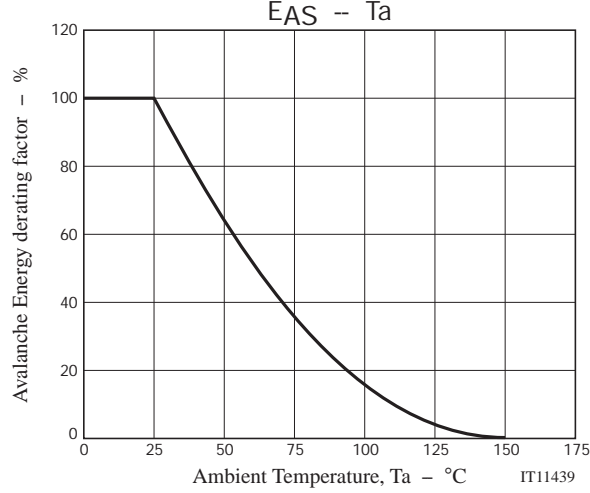
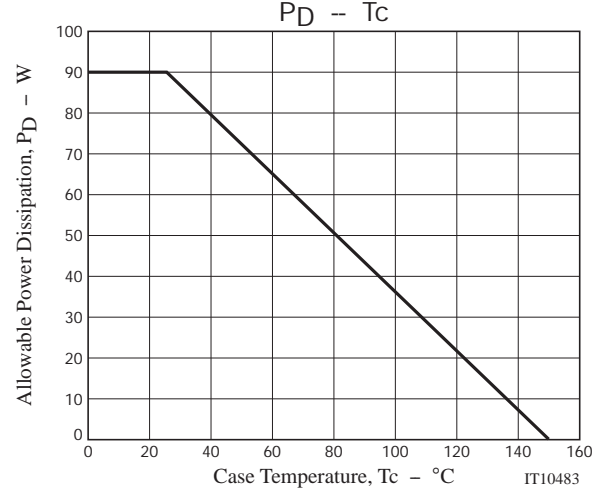
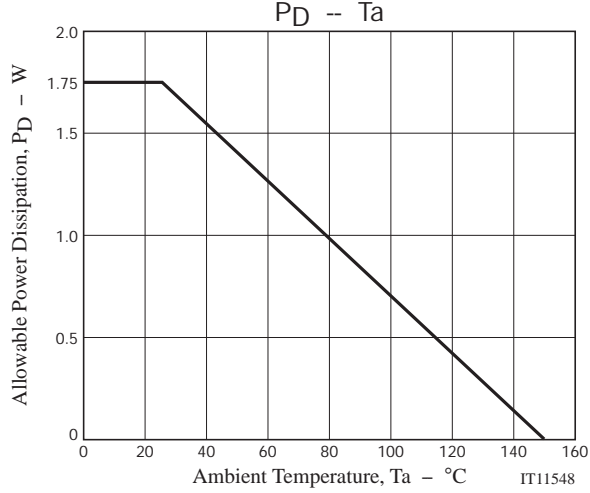
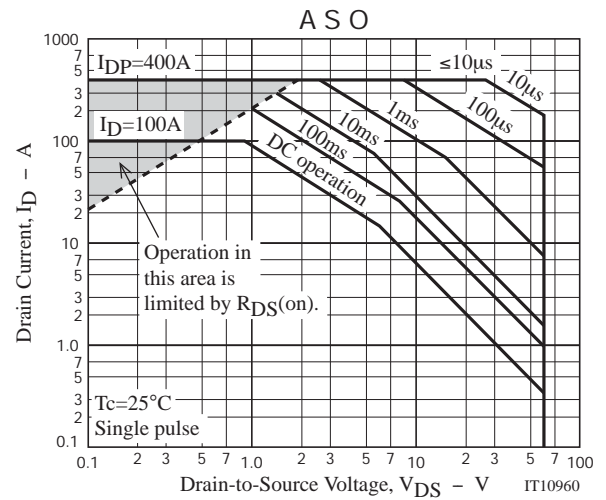
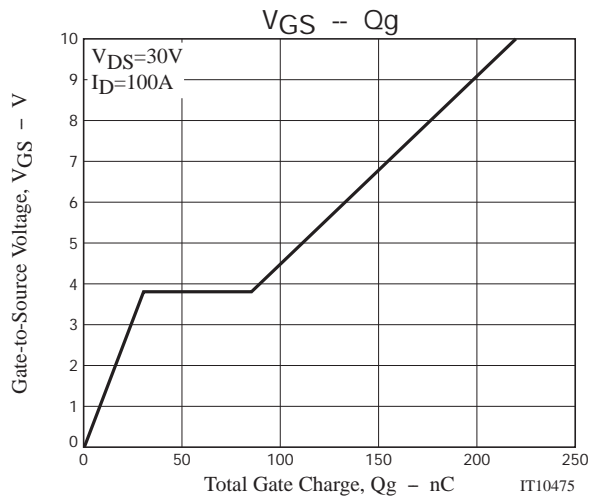
Fig.2 Switching Time Test Circuit



Ordering Information

Device	Package	Shipping	memo
2SK4094-1E	TO-220-3L	50pcs./magazine	Pb Free





Magazine Specification

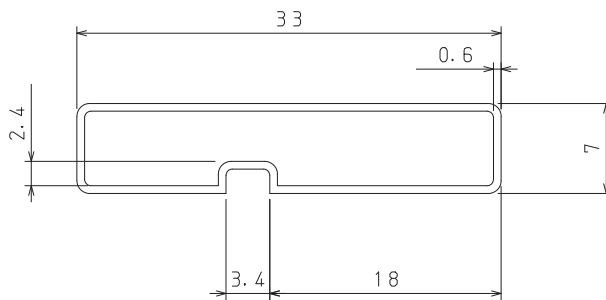
2SK4094-1E

1. Packing Format

Package Name	Maximum Number of devices contained (pcs)			Packing format	
	Magazine	Inner box	Outer box	Inner BOX	Outer BOX
TO-220-3L	50	1,000	4000	SPD-0V0001 20 magazines contained Dimensions:mm (external) 568×150×55	SPD-LV0010 4 inner boxes contained Dimensions:mm (external) 590×225×178

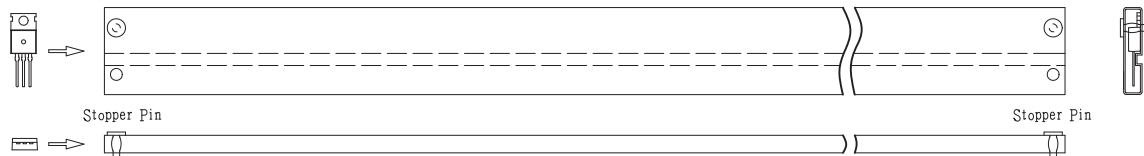
2. Magazine dimensions

(unit:mm)



Tolerance=±0.2mm
 Thickness=0.6+0.2/-0mm
 Length =512.6±1mm
 Material =PVC (Antistatic treatment)

3. Storage method to magazine



4. Inner box label (unit:mm)

Type No.	→	(P) TYPE 000000000
LOT No.	→	(T) LOT 00
Quantity	→	(Q) QTY 0,000 (1) LEAD FREE *
Origin	→	(Z) SPECIAL *Z0722005310C* ASSEMBLY:**** (DIFFUSION:****)

NOTE (1)

The LEAD FREE * description shows that the surface treatment of the terminal is lead free.

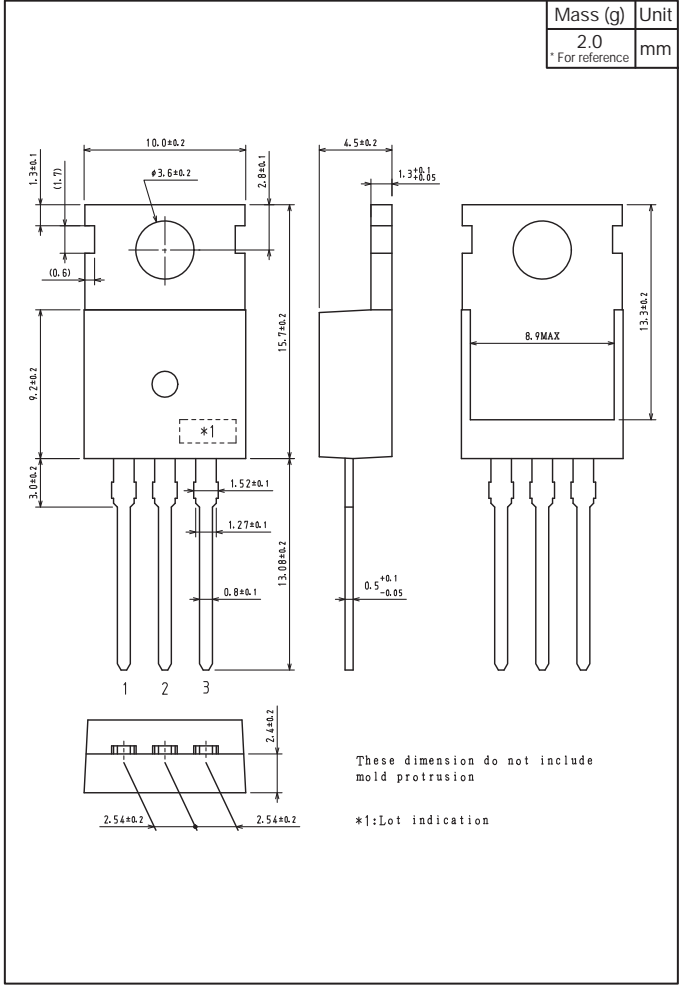
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A

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.

TYPE CODE	
TYPE	00000000
QTY	0,000 PCS (1) LEAD FREE *
LOT	00000000
PACKAGE	00000000
SPECIAL	
ASSEMBLY:**** (DIFFUSION:****)	

Outline Drawing
2SK4094-1E



Note on usage : Since the 2SK4094 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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