



SANYO Semiconductors

DATA SHEET

An ON Semiconductor Company

2SK3748 — N-Channel Silicon MOSFET High-Voltage, High-Speed Switching Applications

Features

- Low ON-resistance, low input capacitance, ultrahigh-speed switching
- High reliability (Adoption of HVP process)
- Attachment workability is good by Mica-less package
- Avalanche resistance guarantee

Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V _{DSS}		1500	V
Gate-to-Source Voltage	V _{GSS}		±20	V
Drain Current (DC)	I _D [*]		4	A
Drain Current (Pulse)	I _{DP}	PW≤10μs, duty cycles≤1%	8	A
Allowable Power Dissipation	P _D		3.0	W
		T _c =25°C	65	W
Channel Temperature	T _{ch}		150	°C
Storage Temperature	T _{stg}		-55 to +150	°C
Avalanche Energy (Single Pulse) *1	E _{AS}		165	mJ
Avalanche Current *2	I _{AV}		4	A

*Shows chip capability

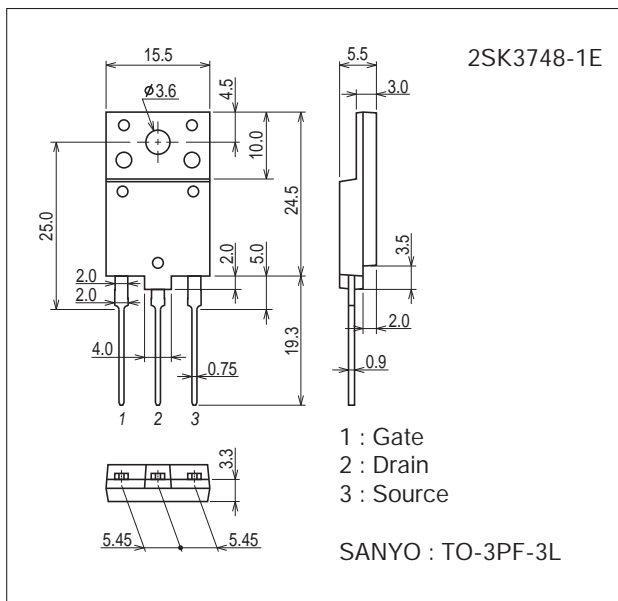
*1 V_{DD}=50V, L=20mH, I_{AV}=4A (Fig.1)

*2 L≤20mH, single pulse

Package Dimensions

unit : mm (typ)

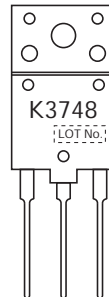
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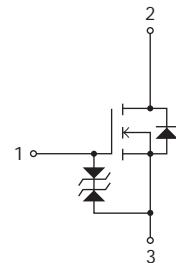
Product & Package Information

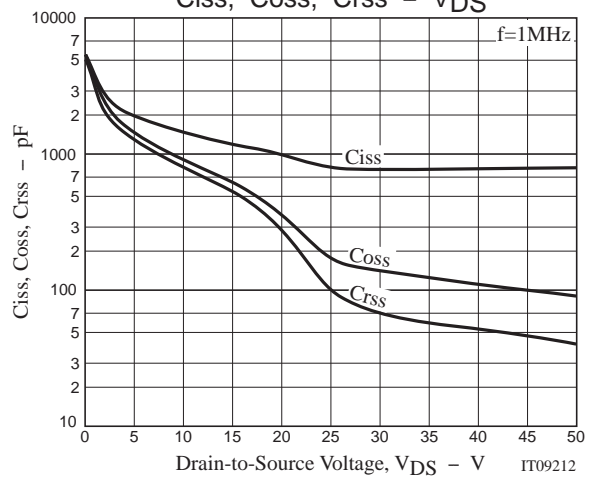
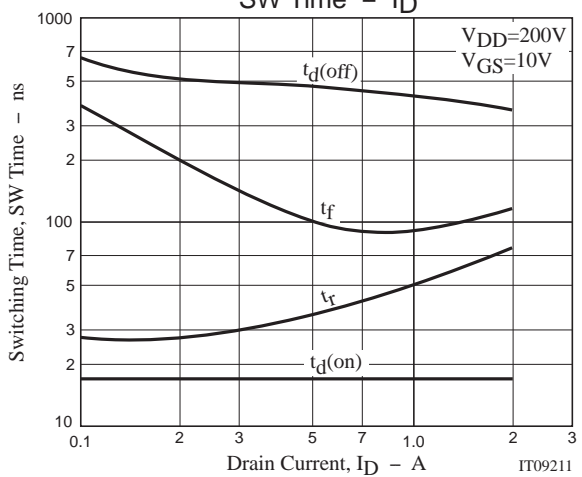
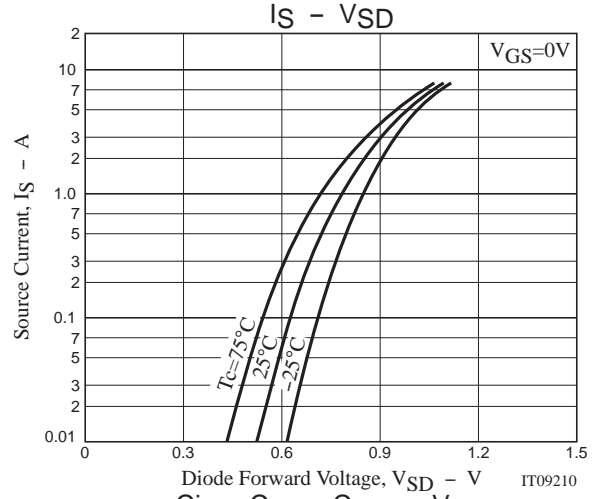
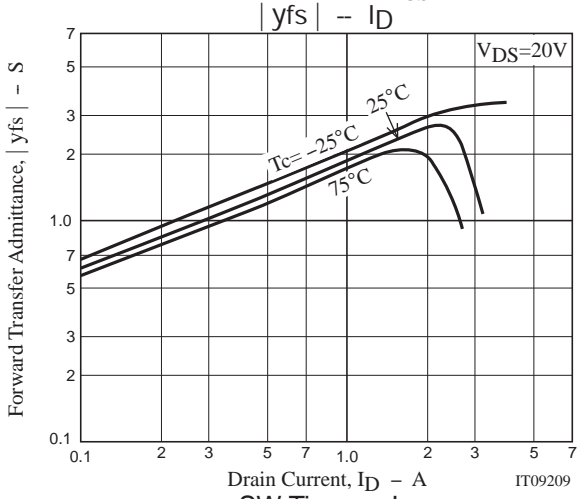
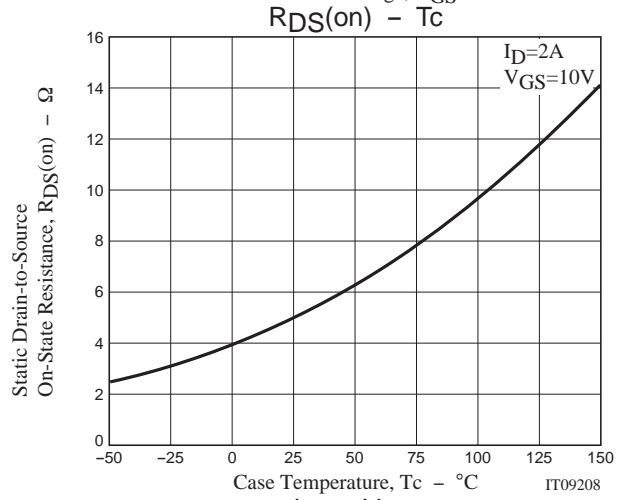
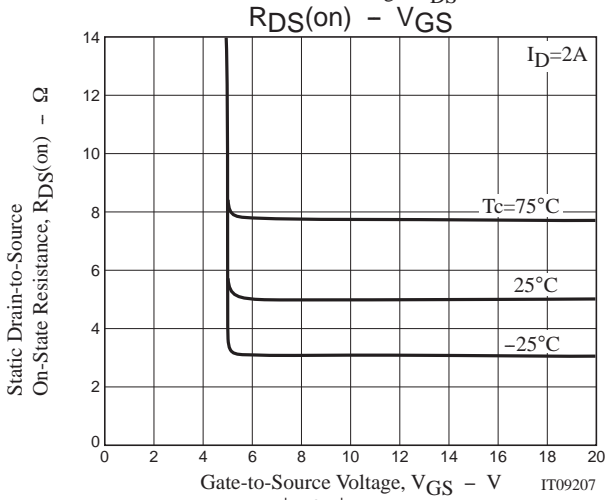
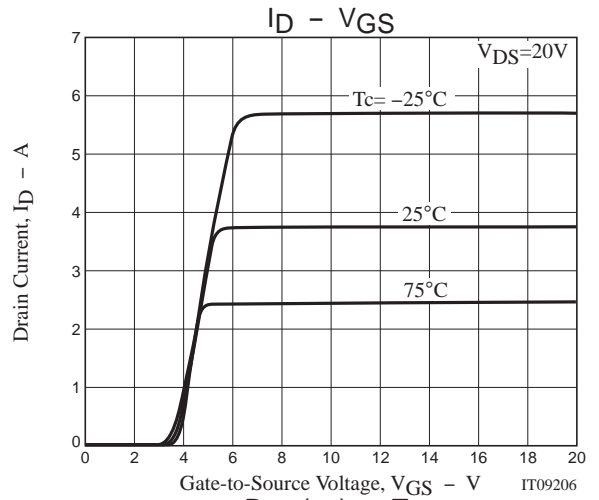
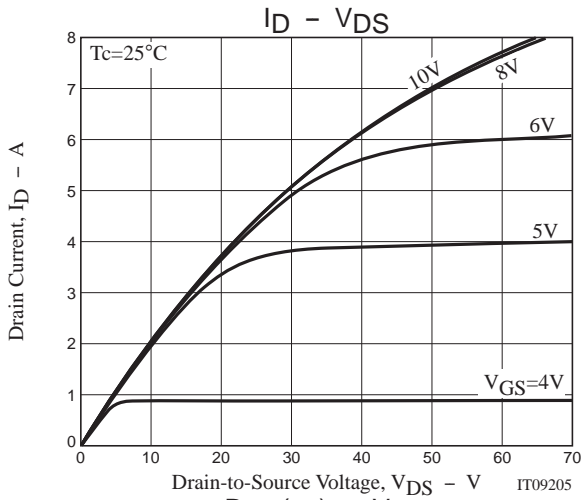
- Package : TO-3PF-3L
- JEITA, JEDEC : SC-94
- Minimum Packing Quantity : 30 pcs./magazine

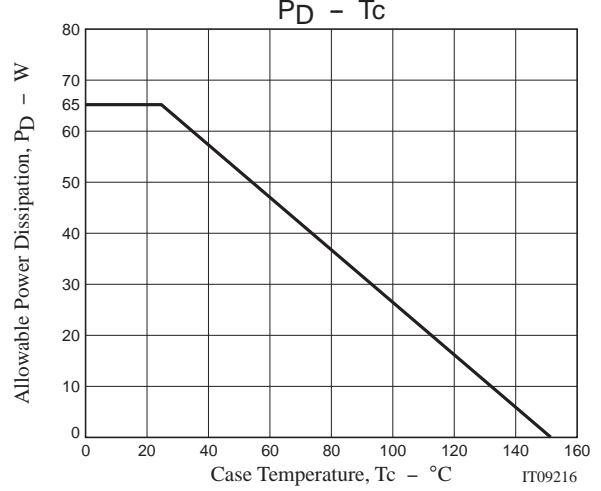
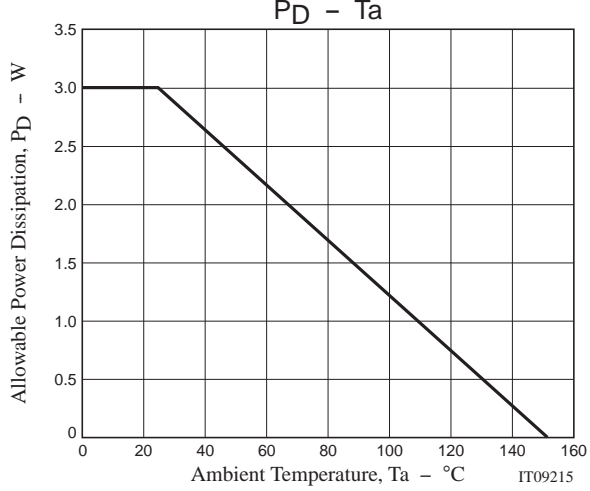
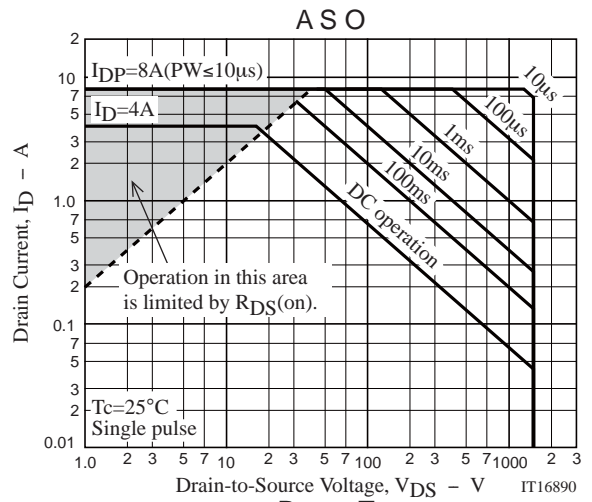
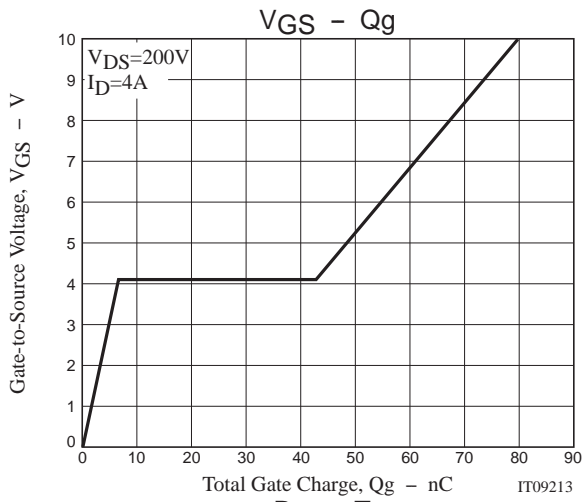
Marking



Electrical Connection







Magazine Specification

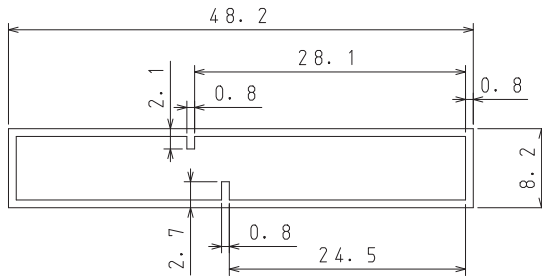
2SK3748-1E

1. Packing Format

Package Name	Maximum Number of devices contained (pcs)			Packing format	
	Magazine	Inner box	Outer box	Inner BOX	Outer BOX
TO-3PF-3L	30	360	1440	SPD-0V0001 12 magazines contained Dimensions:mm (external) 568×150×55	SPD-LV0010 4 inner boxes contained Dimensions:mm (external) 590×225×178

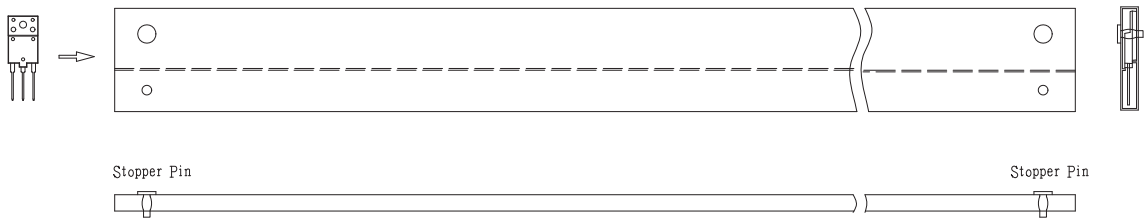
2. Magazine dimensions

(unit:mm)



Tolerance=±0.2mm
 Thickness=0.8±0.2mm
 Length =508.0±1mm
 Material =PVC or PET
 (Antistatic treatment)

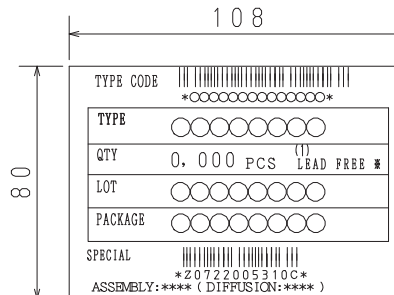
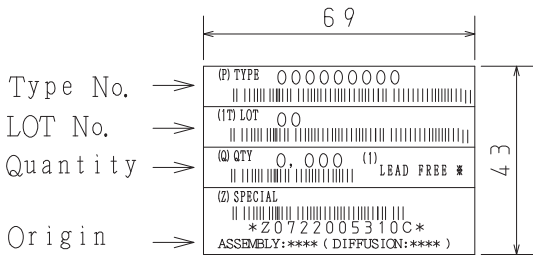
3. Storage method to magazine



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.



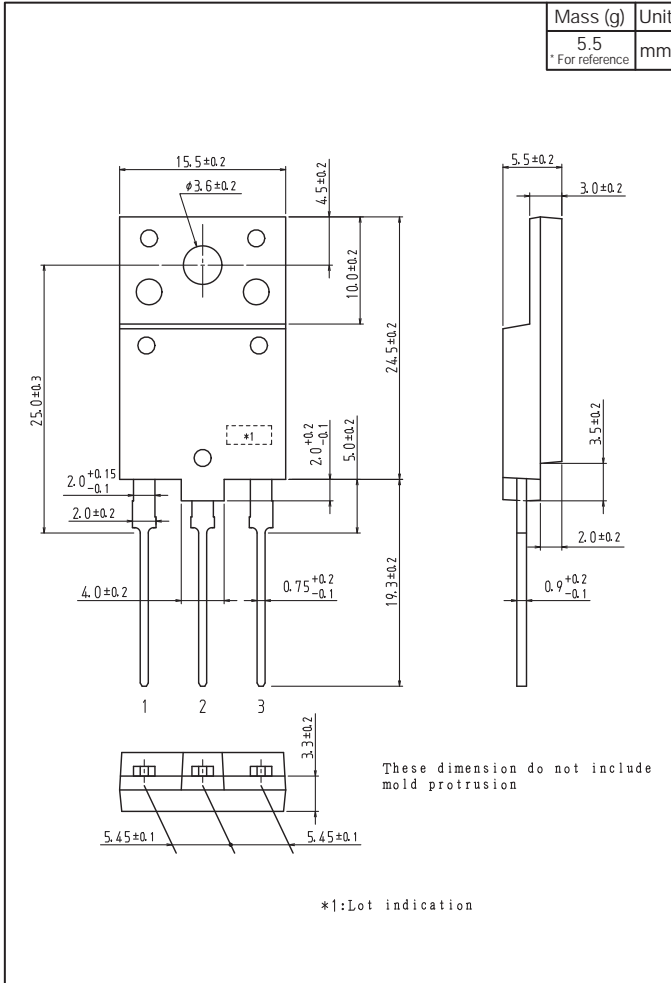
NOTE (1)

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

2SK3748-1E



Note on usage : Since the 2SK3748 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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