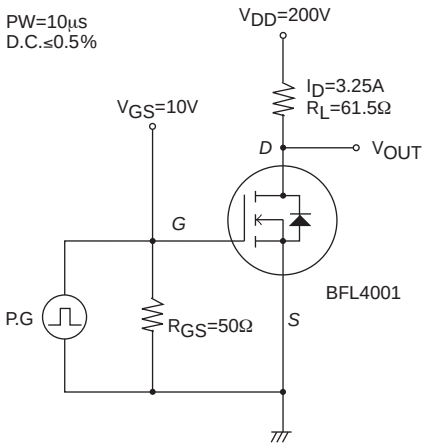
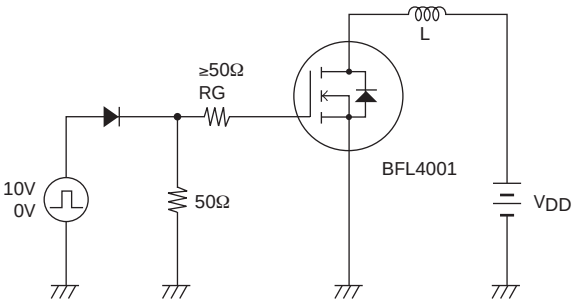
Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	I_D=10mA, V_{GS}=0V	900			V
Zero-Gate Voltage Drain Current	I_{DSS}	V_{DS}=720V, V_{GS}=0V			1.0	mA
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	2.0		4.0	V
Forward Transfer Admittance	| yfs |	V_{DS}=20V, I_D=3.25A	1.8	3.6		S
Static Drain-to-Source On-State Resistance	R_{DS}(on)	I_D=3.25A, V_{GS}=10V		2.1	2.7	Ω
Input Capacitance	Ciss	V_{DS}=30V, f=1MHz		850		pF
Output Capacitance	Coss			130		pF
Reverse Transfer Capacitance	Crss			43		pF
Turn-ON Delay Time	t_{d}(on)	See specified Test Circuit.		19		ns
Rise Time	t_r			49		ns
Turn-OFF Delay Time	t_{d}(off)			156		ns
Fall Time	t_f			52		ns
Total Gate Charge	Qg	V_{DS}=200V, V_{GS}=10V, I_D=6.5A		44		nC
Gate-to-Source Charge	Qgs			7.0		nC
Gate-to-Drain “Miller” Charge	Qgd			22		nC
Diode Forward Voltage	V_{SD}	I_S=6.5A, V_{GS}=0V		0.85	1.2	V

Switching Time Test Circuit

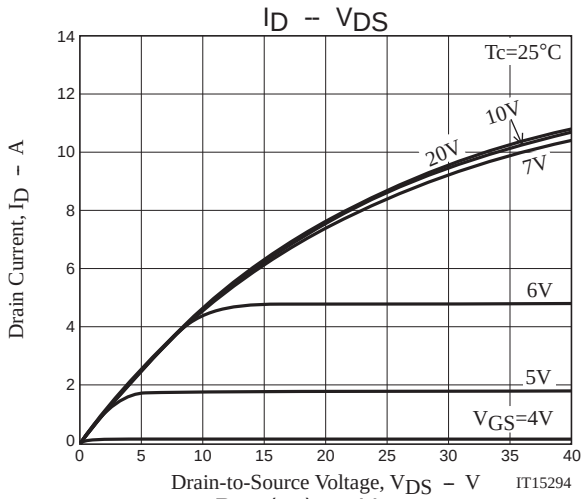


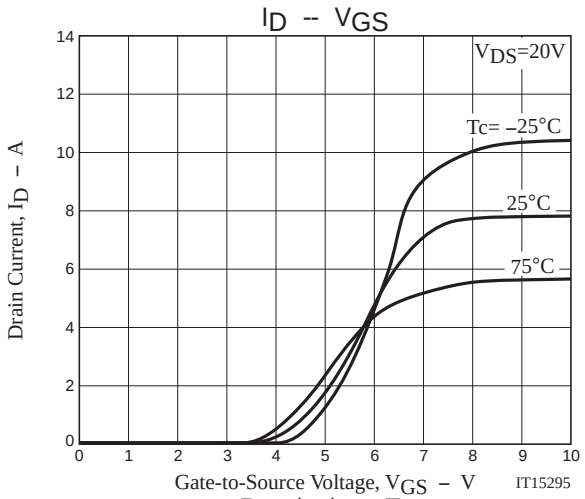
Avalanche Resistance Test Circuit

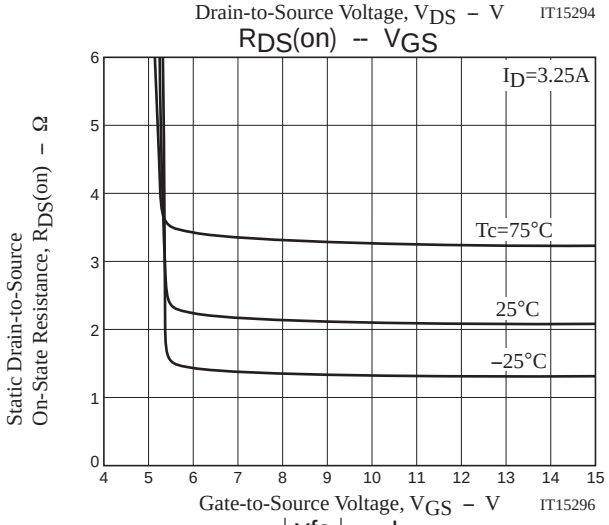


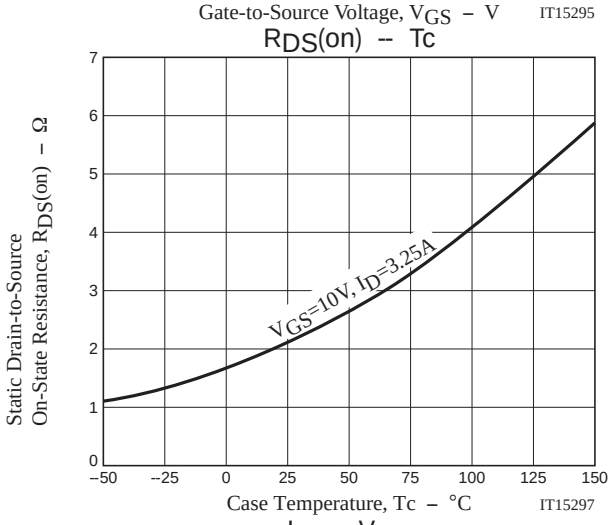
Ordering Information

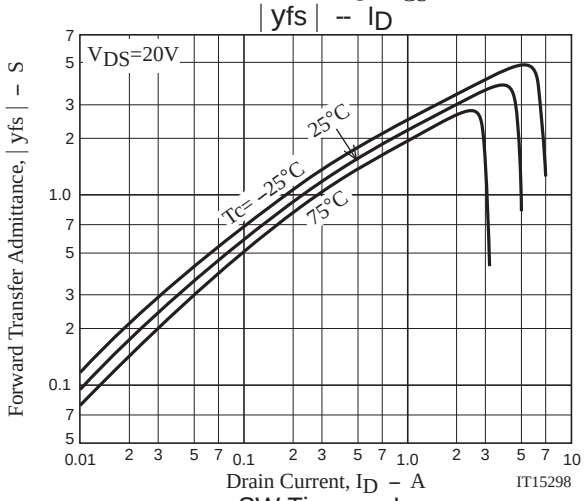
Device	Package	Shipping	memo
BFL4001-1E	TO-220F-3FS	50pcs./magazine	Pb Free

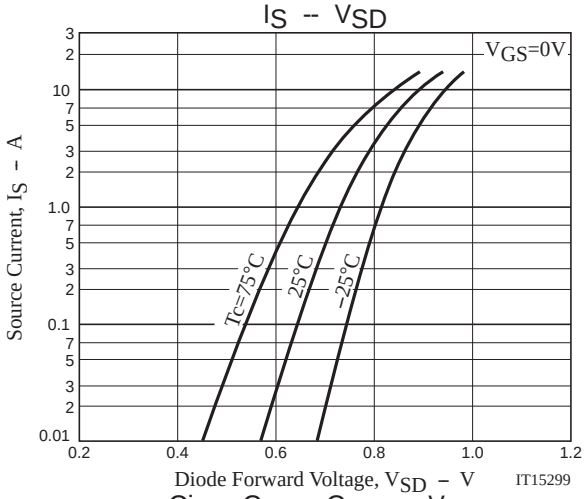


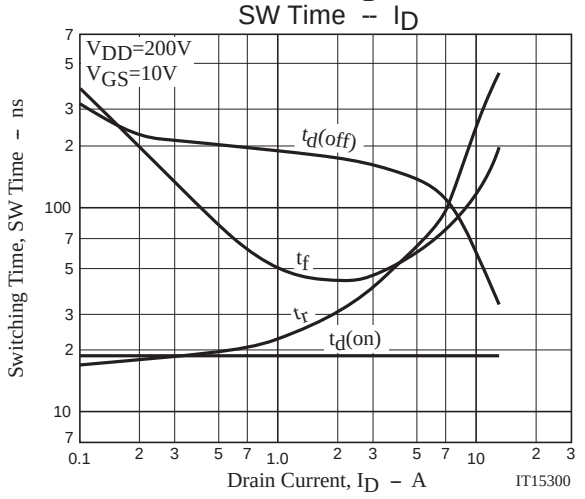


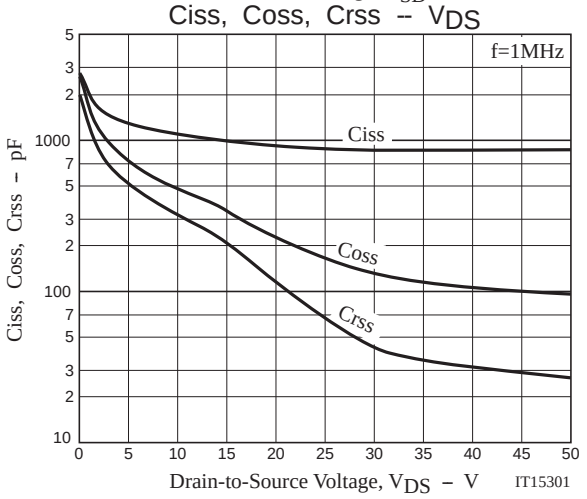


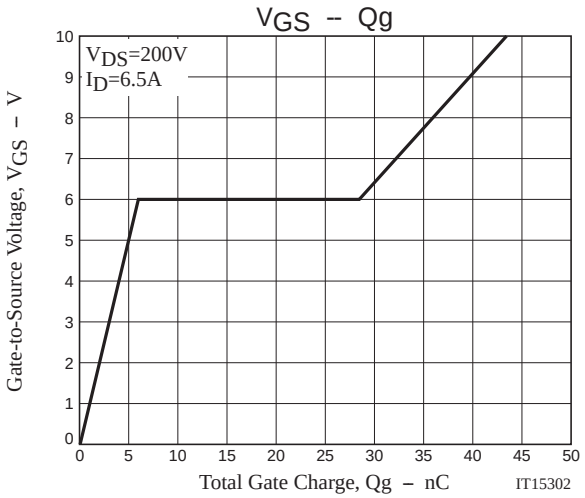


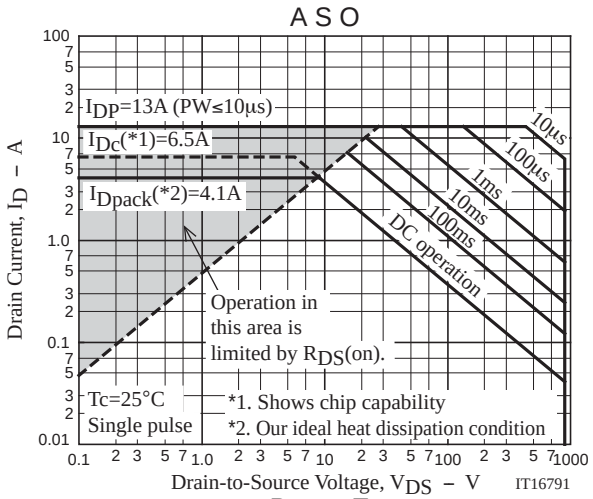


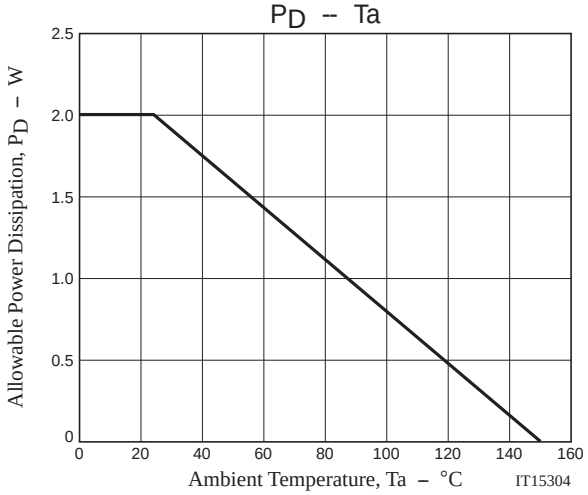


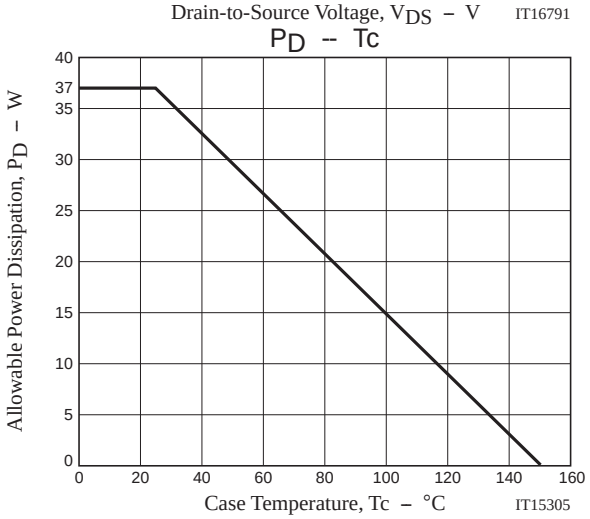


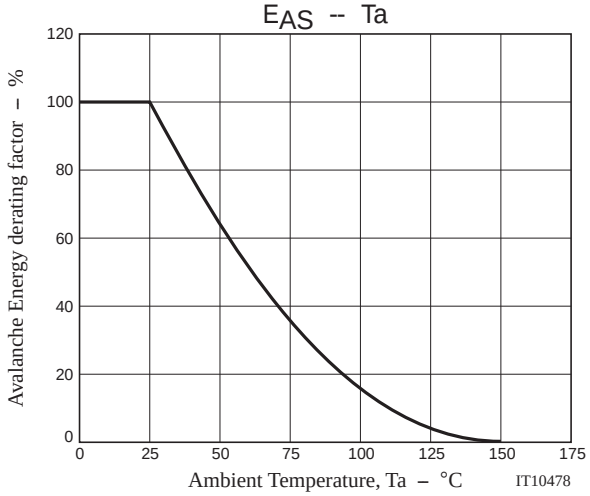












Magazine Specification

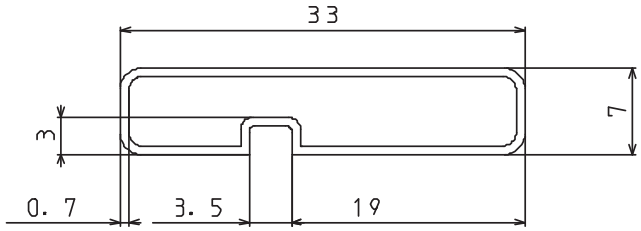
BFL4001-1E

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

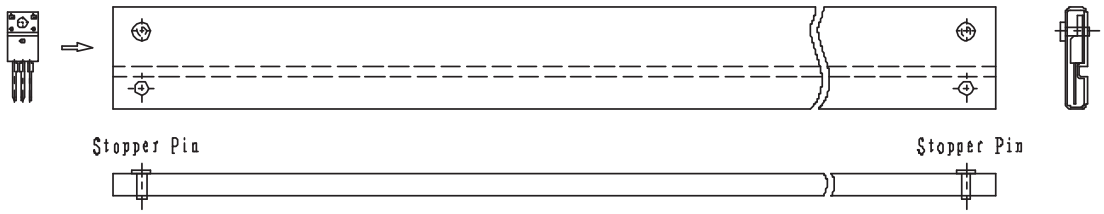
2. Magazine dimensions

(unit:mm)

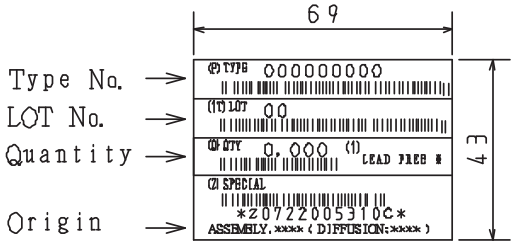


Tolerance=±0.3mm
Thickness=0.7±0.2mm
Length =532.5±2mm
Material =PVC (Antistatic treatment)

3. Storage method to magazine

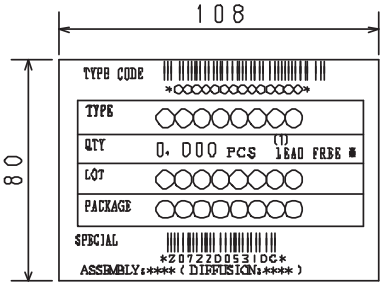


4. Inner box label (unit:mm)



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.

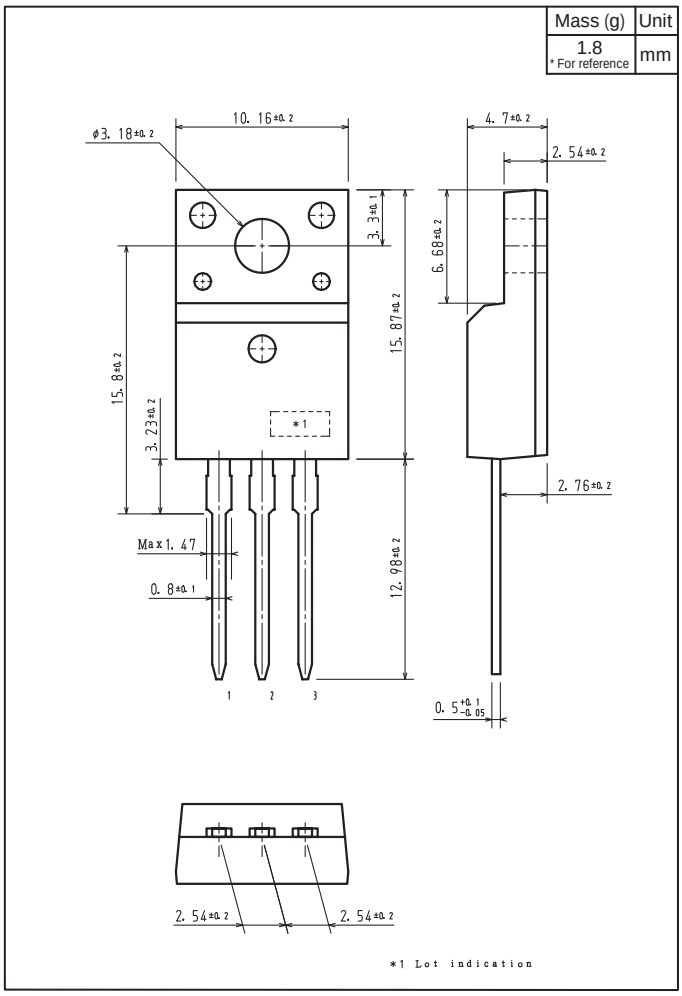


NOTE (1)
The LEAD FREE ※ description shows that the surface treatment of the terminal is lead free.

Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A

Outline Drawing

BFL4001-1E



Note on usage : Since the BFL4001 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.