

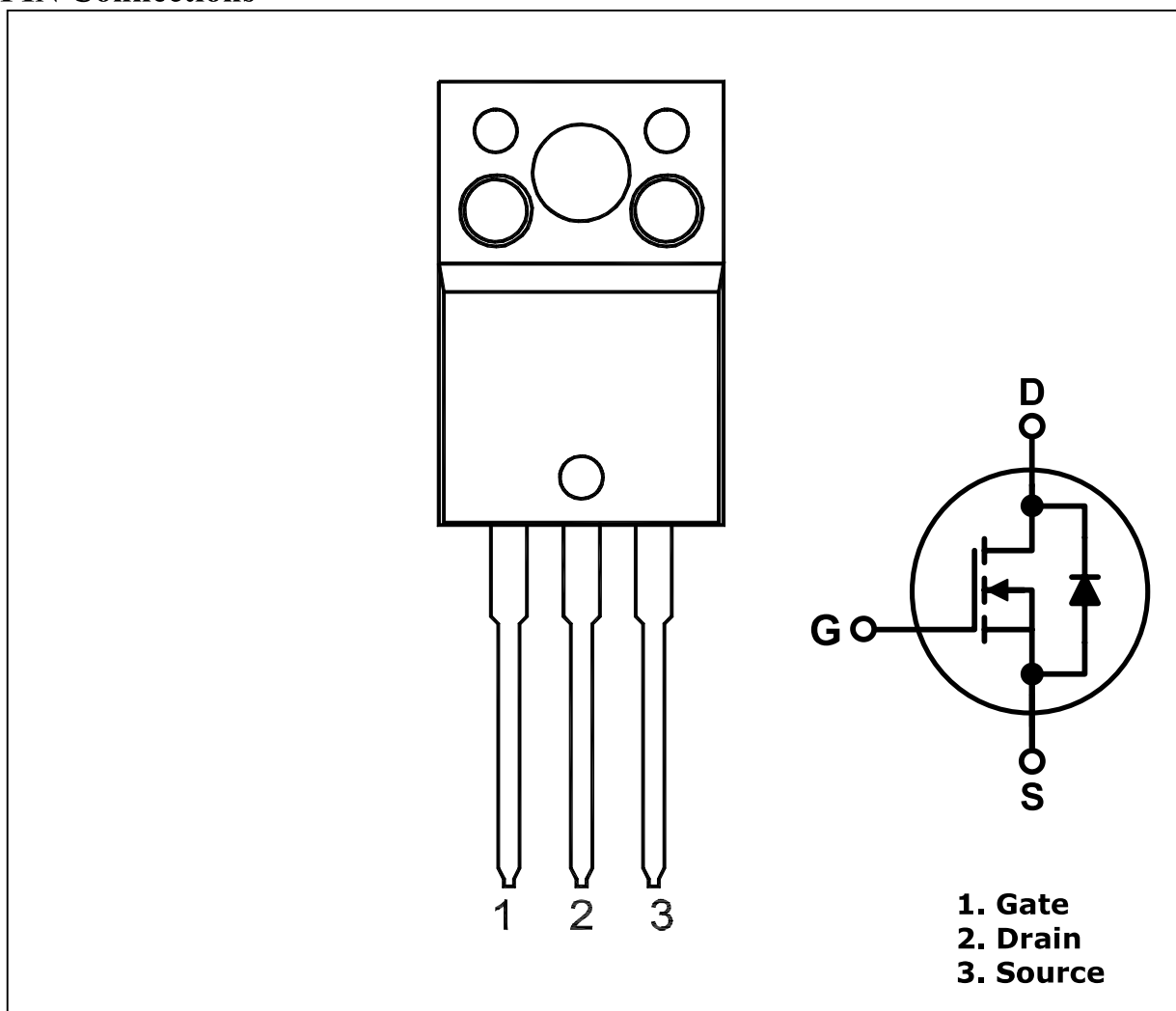
SWITCHING REGULATOR APPLICATIONS

Features

- High Voltage: $BV_{DS} = 700V$ (Min.)
- Low C_{rss} : $C_{rss} = 13.7pF$ (Typ.)
- Low gate charge : $Q_g = 32nC$ (Typ.)
- Low $R_{DS(on)}$: $R_{DS(on)} = 0.9\Omega$ (Max.)

Ordering Information

Type NO.	Marking	Package Code
SMK0870F	SMK0870	TO-220F-3L

PIN Connections

Absolute maximum ratings**(Tc=25°C)**

Characteristic	Symbol		Rating	Unit
Drain-source voltage	V _{DSS}		700	V
Gate-source voltage	V _{GSS}		±30	V
Drain current (DC)*	I _D	(Tc=25℃)	8	A
		(Tc=100℃)	4.8	A
Drain current (Pulsed)*	I _{DM}		32	A
Drain power dissipation	P _D		40	W
Avalanche current (Single) ②	I _{AS}		8	A
Single pulsed avalanche energy ②	E _{AS}		266	mJ
Avalanche current (Repetitive) ①	I _{AR}		8	A
Repetitive avalanche energy ①	E _{AR}		11.6	mJ
Junction temperature	T _J		150	℃
Storage temperature range	T _{stg}		-55~150	

* Limited by maximum junction temperature

Characteristic		Symbol	Typ.	Max	Unit
Thermal resistance	Junction-case	$R_{th(J-C)}$	-	3.1	°C/W
	Junction-ambient	$R_{th(J-a)}$	-	62.5	