

$V_{DSS}$	500V
$R_{DS(on)}$ (Max.)	0.84 $\Omega$
$I_D$	9A
$P_D$	50W

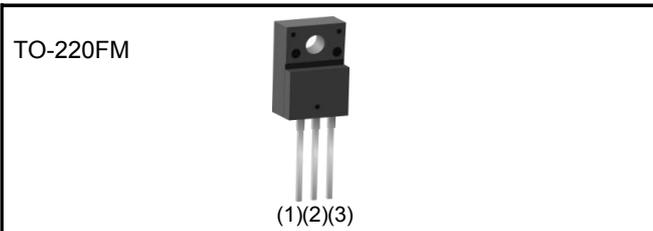
#### ●Features

- 1) Low on-resistance.
- 2) Fast switching speed.
- 3) Gate-source voltage ( $V_{GSS}$ ) guaranteed to be  $\pm 30V$ .
- 4) Drive circuits can be simple.
- 5) Parallel use is easy.
- 6) Pb-free lead plating ; RoHS compliant

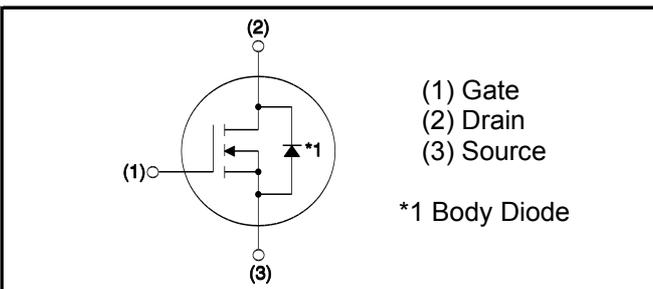
#### ●Application

Switching Power Supply

#### ●Outline



#### ●Inner circuit



#### ●Packaging specifications

Type	Packaging	Bulk
	Reel size (mm)	-
	Tape width (mm)	-
	Basic ordering unit (pcs)	500
	Taping code	-
	Marking	R5009FNX

#### ●Absolute maximum ratings( $T_a = 25^\circ C$ )

Parameter	Symbol	Value	Unit	
Drain - Source voltage	$V_{DSS}$	500	V	
Continuous drain current	$T_c = 25^\circ C$	$I_D^{*1}$	$\pm 9$	A
	$T_c = 100^\circ C$	$I_D^{*1}$	$\pm 4.4$	A
Pulsed drain current	$I_{D,pulse}^{*2}$	$\pm 36$	A	
Gate - Source voltage	$V_{GSS}$	$\pm 30$	V	
Avalanche energy, single pulse	$E_{AS}^{*3}$	5.4	mJ	
Avalanche energy, repetitive	$E_{AR}^{*4}$	3.5	mJ	
Avalanche current	$I_{AR}^{*3}$	4.5	A	
Power dissipation ( $T_c = 25^\circ C$ )	$P_D$	50	W	
Junction temperature	$T_j$	150	$^\circ C$	
Range of storage temperature	$T_{stg}$	-55 to +150	$^\circ C$	
Reverse diode dv/dt	dv/dt <sup>*5</sup>	15	V/ns	