Old Company Name in Catalogs and Other Documents

On April 1st, 2010, NEC Electronics Corporation merged with Renesas Technology Corporation, and Renesas Electronics Corporation took over all the business of both companies. Therefore, although the old company name remains in this document, it is a valid Renesas Electronics document. We appreciate your understanding.

Renesas Electronics website: http://www.renesas.com

April 1st, 2010 Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (http://www.renesas.com)

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Regarding the change of names mentioned in the document, such as Mitsubishi Electric and Mitsubishi XX, to Renesas Technology Corp.

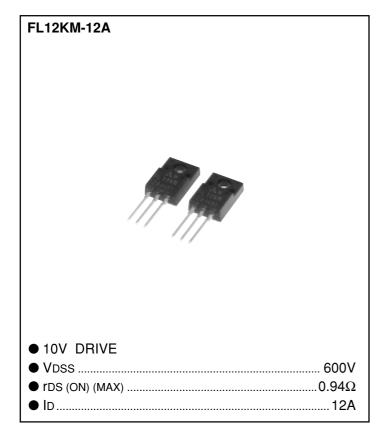
The semiconductor operations of Hitachi and Mitsubishi Electric were transferred to Renesas Technology Corporation on April 1st 2003. These operations include microcomputer, logic, analog and discrete devices, and memory chips other than DRAMs (flash memory, SRAMs etc.) Accordingly, although Mitsubishi Electric, Mitsubishi Electric Corporation, Mitsubishi Semiconductors, and other Mitsubishi brand names are mentioned in the document, these names have in fact all been changed to Renesas Technology Corp. Thank you for your understanding. Except for our corporate trademark, logo and corporate statement, no changes whatsoever have been made to the contents of the document, and these changes do not constitute any alteration to the contents of the document itself.

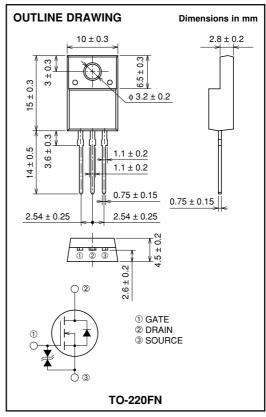
Note: Mitsubishi Electric will continue the business operations of high frequency & optical devices and power devices.

Renesas Technology Corp. Customer Support Dept. April 1, 2003



HIGH-SPEED SWITCHING USE





APPLICATION

SMPS, Inverter fluorescent light sets, etc.

MAXIMUM RATINGS (Tc = 25°C)

Symbol	Parameter	Conditions	Ratings	Unit
VDSS	Drain-source voltage	VGS = 0V	600	V
Vgss	Gate-source voltage	VDS = 0V	±30	V
ID	Drain current		12	Α
IDM	Drain current (Pulsed)		36	Α
IDA	Avalanche drain current (Pulsed)	L = 200μH	12	Α
PD	Maximum power dissipation		40	W
Tch	Channel temperature		− 55 ~ +150	°C
Tstg	Storage temperature		− 55 ~ +150	°C
Viso	Isolation voltage	AC for 1 minute, Terminal to case	2000	V
_	Weight	Typical value	2.0	g

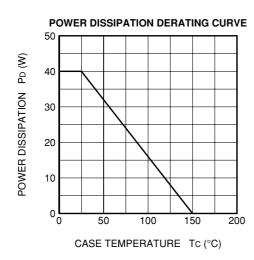


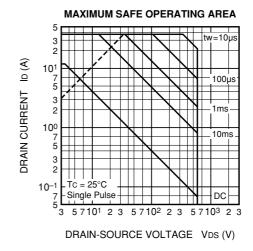
HIGH-SPEED SWITCHING USE

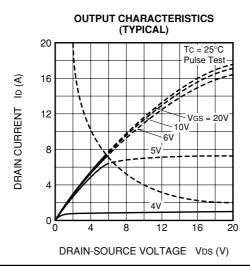
ELECTRICAL CHARACTERISTICS (Tch = 25°C)

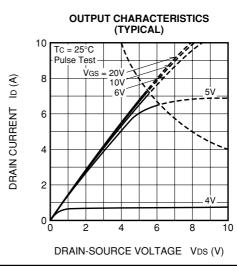
Symbol	Parameter	Test conditions	Limits			Llmit
			Min.	Тур.	Max.	Unit
V (BR) DSS	Drain-source breakdown voltage	ID = 1mA, VGS = 0V	600	_	_	V
V (BR) GSS	Gate-source breakdown voltage	$IGS = \pm 100 \mu A$, $VDS = 0V$	±30			V
Igss	Gate-source leakage current	$VGS = \pm 25V$, $VDS = 0V$	_	_	±10	μΑ
IDSS	Drain-source leakage current	VDS = 600V, VGS = 0V	_	_	1	mA
VGS (th)	Gate-source threshold voltage	ID = 1mA, VDS = 10V	2.0	3.0	4.0	V
rDS (ON)	Drain-source on-state resistance	ID = 6A, VGS = 10V	_	0.80	0.94	Ω
VDS (ON)	Drain-source on-state voltage	ID = 6A, VGS = 10V	_	4.80	5.64	V
yfs	Forward transfer admittance	ID = 6A, VDS = 10V	_	8.0	_	S
Ciss	Input capacitance	VDS = 25V, VGS = 0V, f = 1MHz	_	1250		pF
Coss	Output capacitance		_	150	_	pF
Crss	Reverse transfer capacitance		_	55	_	pF
td (on)	Turn-on delay time	- VDD = 200V, ID = 6A, VGS = 10V, RGEN = RGS = 50Ω	_	25	_	ns
tr	Rise time		_	45	_	ns
td (off)	Turn-off delay time		_	250	_	ns
tf	Fall time		_	90	_	ns
VsD	Source-drain voltage	Is = 6A, VGS = 0V	_	1.5	2.0	V
Rth (ch-c)	Thermal resistance	Channel to case	_	_	3.13	°C/W

PERFORMANCE CURVES





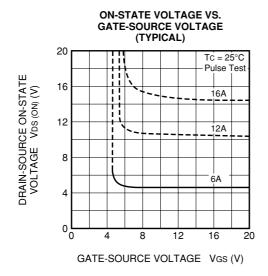


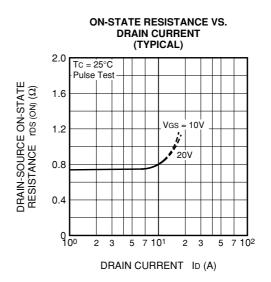


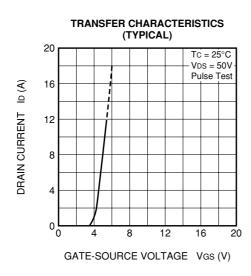
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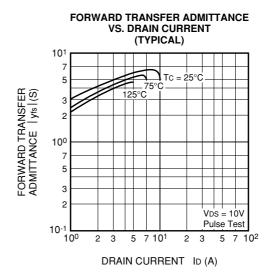


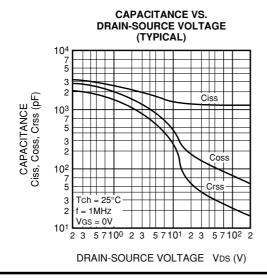
HIGH-SPEED SWITCHING USE

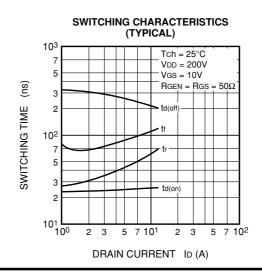












HIGH-SPEED SWITCHING USE

