

SPECIFICATION

DEVICE NAME : Power MOSFET

TYPE NAME : 2SJ475-01

SPEC. NO. :

Fuji Electric Co.,Ltd.

This Specification is subject to change without notice.

	DATE	NAME	APPROVED	Fuji Electric Co.,Ltd.	
DRAWN				DWG. NO.	1/12
CHECKED					

- 1.Scope This specifies Fuji Power MOSFET 2SJ475-01
- 2.Construction P-Channel enhancement mode power MOSFET
- 3.Applications for Switching
- 4.Outview T0-220 Outview See to 5/12 page

5.Absolute Maximum Ratings at Tc=25°C (unless otherwise specified)

Description	Symbol	Characteristics	Unit	Remarks
Drain-Source Voltage	V _{DS}	-60	V	
Continuous Drain Current	I _D	±25	A	
Pulsed Drain Current	I _{DP}	±100	A	
Gate-Source Voltage	V _{GS}	±20	V	
Maximum Avalanche Energy	E _{AV}	325.9	mJ	*1
Maximum Power Dissipation	P _D	50	W	
Operating and Storage	T _{ch}	150	°C	
Temperature range	T _{stg}	-55 to +150	°C	

*1 L=0.695mH, V_{CC}=-24V

6.Electrical Characteristics at Tc=25°C (unless otherwise specified)

Static Ratings

Description	Symbol	Conditions	min.	typ.	max.	Unit
Drain-Source Breakdown Voltage	BV _{DSS}	I _D =-1mA V _{GS} =0V	-60			V
Gate Threshold Voltage	V _{GS(th)}	I _D =-1mA V _{DS} =V _{GS}	-1.0	-1.5	-2.5	V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =-60V V _{GS} =0V	T _{ch} =25°C	-10	-500	μA
			T _{ch} =125°C	-0.2	-1.0	mA
Gate-Source Leakage Current	I _{GSS}	V _{GS} =±20V V _{DS} =0V		10	100	nA
Drain-Source On-State Resistance	R _{DS(on)}	I _D =-12.5A	V _{GS} =-4V	80	110	mΩ
			V _{GS} =-10V	45	60	

Dynamic Ratings

Description	Symbol	Conditions	min.	typ.	max.	Unit
Forward Transconductance	g_{fs}	$I_D = -12.5A$ $V_{DS} = -25V$	7.5	15.0		S
Input Capacitance	C_{iss}	$V_{DS} = -25V$ $V_{GS} = 0V$ $f = 1MHz$		2000	3000	pF
Output Capacitance	C_{oss}			700	1050	
Reverse Transfer Capacitance	C_{rss}			450	680	
Turn-On Time	$t_{d(on)}$	$V_{cc} = -30V$ $V_{GS} = -10V$ $I_D = -25A$ $R_{GS} = 10\Omega$		15	25	ns
	t_r			80	120	
Turn-Off Time	$t_{d(off)}$			190	290	
	t_f		90	140		

Reverse Diode

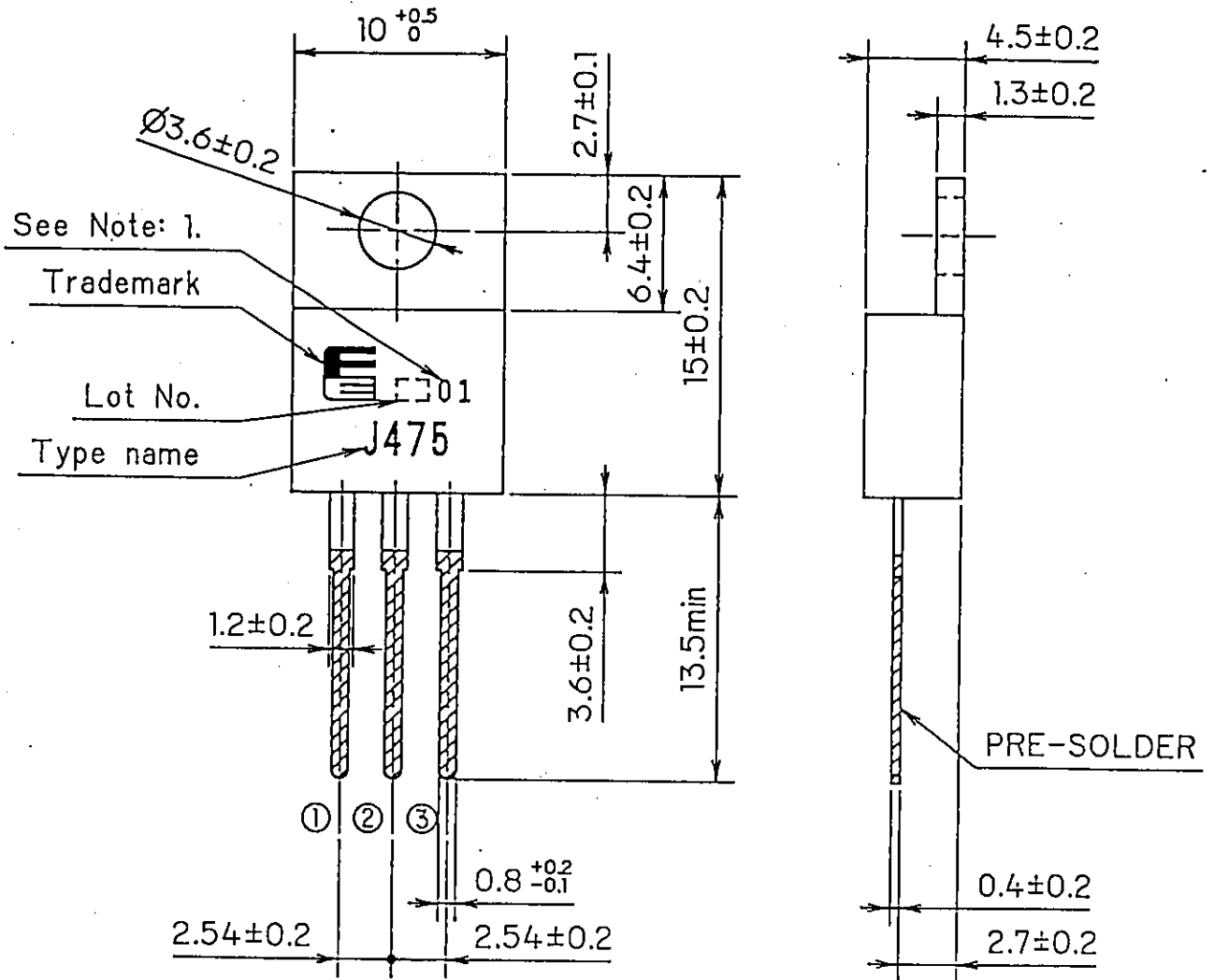
Description	Symbol	Conditions	min.	typ.	max.	Unit
Avalanche Capability	I_{AV}	$L = 100\mu H$ $T_{ch} = 25^\circ C$ See Fig.1 and Fig.2	-25			A
Diode Forward On-Voltage	V_{SD}	$I_F = 2 \times I_{DR}$ $V_{GS} = 0V$ $T_{ch} = 25^\circ C$		-2	-3	V
Reverse Recovery Time	t_{rr}	$I_F = I_{DR}$ $di/dt = 100A/\mu s$ $T_{ch} = 25^\circ C$		160		ns
Reverse Recovery Charge	Q_{rr}				0.9	

7. Thermal Resistance

Description	Symbol	min.	typ.	max.	Unit
Channel to Case	$R_{th(ch-c)}$			2.50	$^\circ C/W$
Channel to Ambient	$R_{th(ch-a)}$			75	$^\circ C/W$

FUJI POWER MOS FET

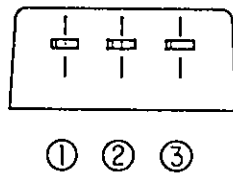
TYPE : 2SJ475-01



See Note: 1.
 Trademark
 Lot No.
 Type name

CONNECTION

- ① GATE
- ② DRAIN
- ③ SOURCE



JEDEC : TO-220AB

Note: 1. Guaranteed mark of avalanche ruggedness.

DIMENSIONS ARE IN MILLIMETERS.