

# ST80-14MF

TVS

400A, 8000W

## Feature

- Peak pulse power:8000W
- SMD
- Available for automotive use
- Pb free terminal
- RoHS:Yes

## OUTLINE

Package (House Name): MCP



## Equivalent circuit



## Absolute Maximum Ratings (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	T <sub>stg</sub>		-40 to 150	°C
Operating junction temperature	T <sub>j</sub>		-40 to 150	°C
Maximum surge reverse current	I <sub>RSM</sub>	10/1000μs, Non-repetitive *	400	A
Maximum surge reverse current	I <sub>RSM</sub>	10/10000μs, Non-repetitive *	200	A
Maximum surge reverse power	P <sub>RSM</sub>	10/1000μs, Non-repetitive *	8000	W
Maximum surge reverse power	P <sub>RSM</sub>	10/10000μs, Non-repetitive *	4000	W
Continuous (direct) reverse voltage	V <sub>R(DC)</sub>		12	V
Power dissipation	P		5	W

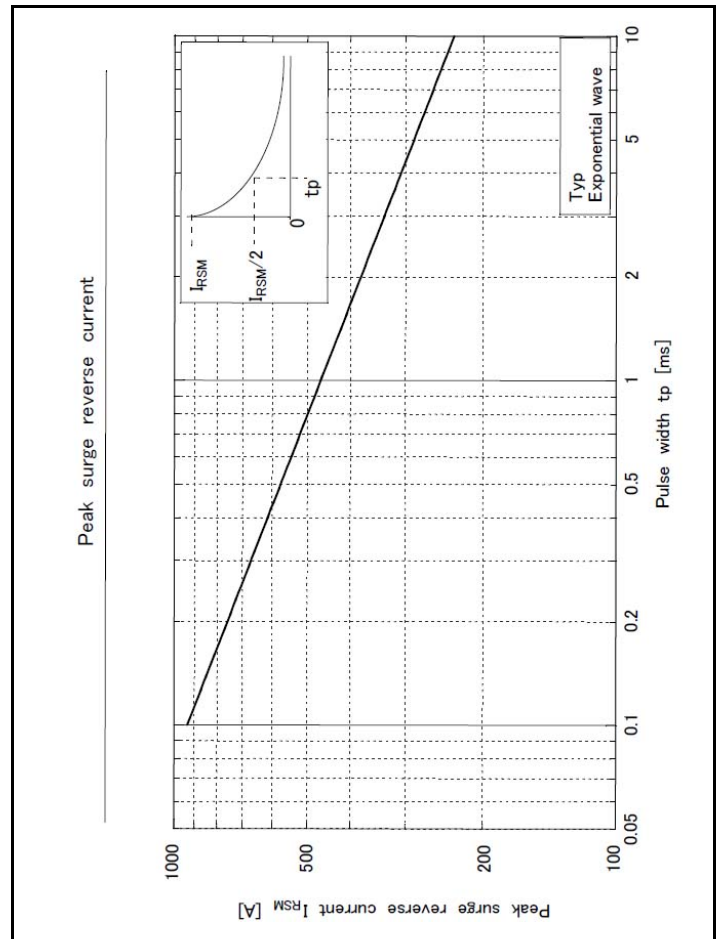
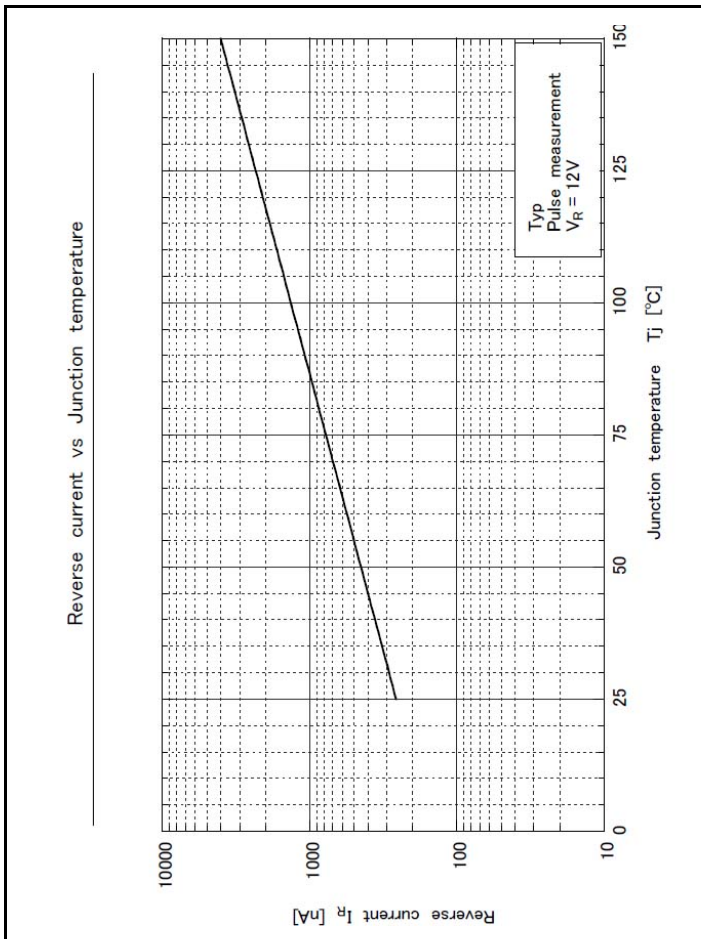
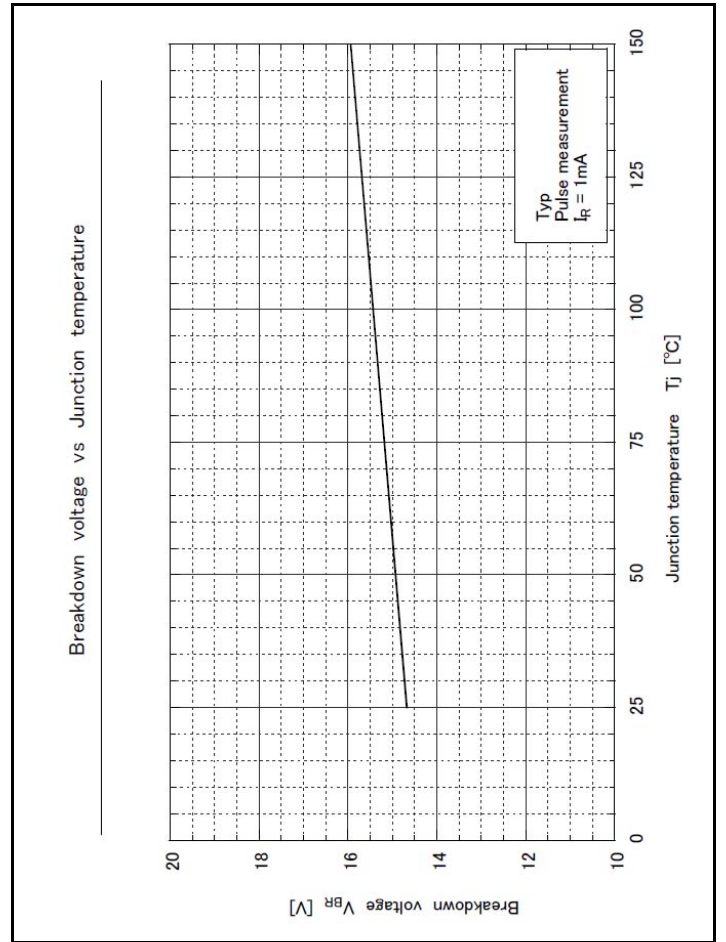
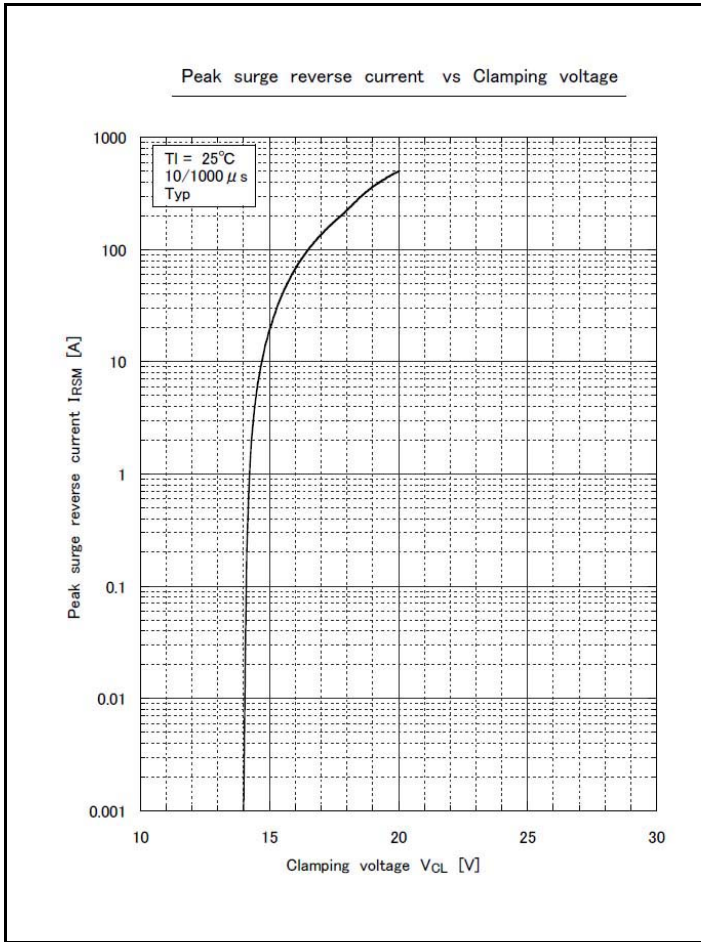
\* :See the original Specifications

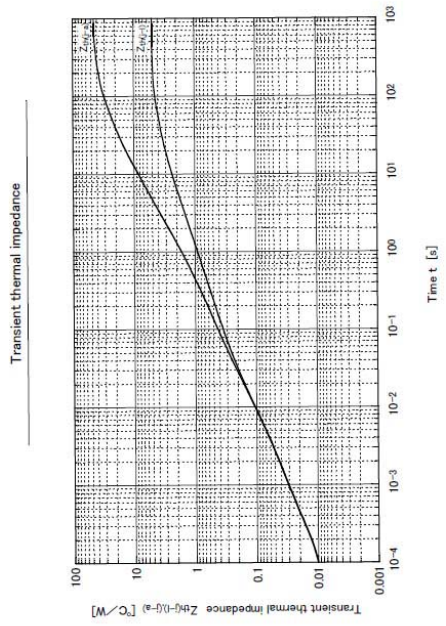
**Electrical Characteristics** (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Breakdown voltage	$V_{BR}$	$I_R=1mA$ , Pulse measurement	13		15	V
Reverse current	$I_R$	$V_R=12V$ , Pulse measurement			10	$\mu A$
Thermal resistance	$R_{th(j-l)}$	Junction to lead, On glass-epoxy substrate *			5	$^{\circ}C/W$
Thermal resistance	$R_{th(j-a)}$	Junction to ambient, On glass-epoxy substrate *			45	$^{\circ}C/W$
Forward voltage	$V_F$	$I_F=30A$ , Pulse Measurement			1.3	V
Temperature coefficient	$r_z$				0.08	$\%/^{\circ}C$

\* :See the original Specifications

# CHARACTERISTIC DIAGRAMS

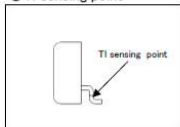




● Substrate detail

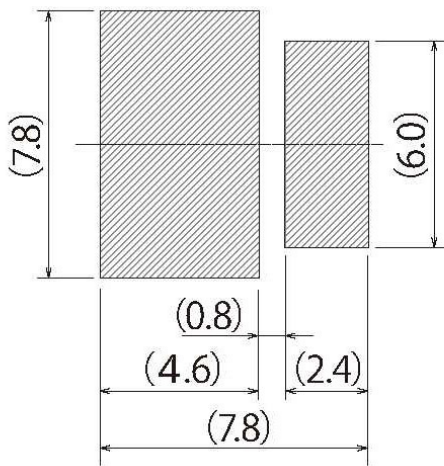
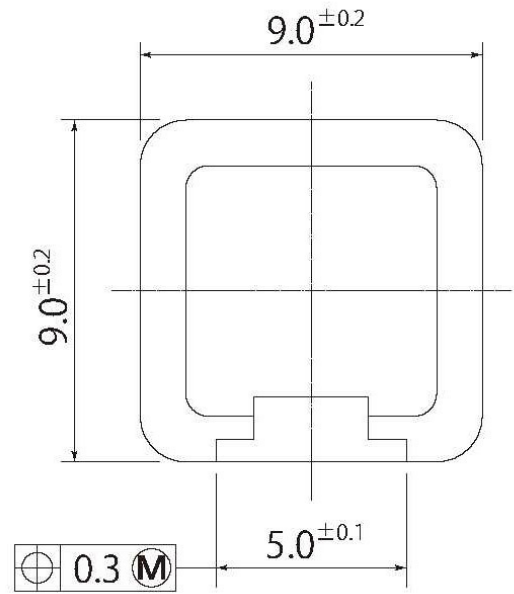
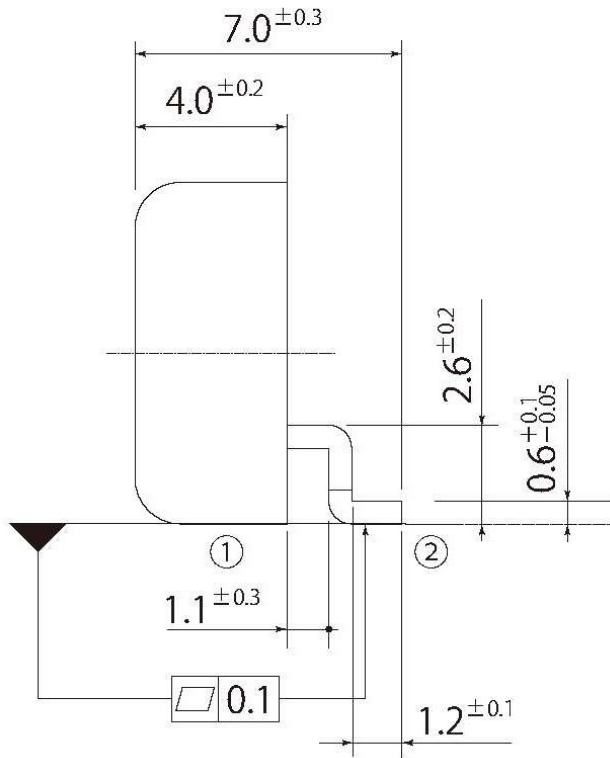
Type	Glass-epoxy
Size	2 inch <sup>2</sup>
Thickness	1mm
Conductor thickness	35μm
Pattern area	242mm <sup>2</sup>

● TI sensing point



E1

JEDEC Code	—
JEITA Code	—
House Name	MCP



Referential Soldering Pad

• Optimize soldering pad to the board design and soldering condition.