ShinDengen

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	Tstg		-40 to 150	°C
Operating junction temperature	Tj		-40 to 150	°C
Maximum surge reverse current	I_{RSM}	10/1000μs, Non-repetitive ※	400	A
Maximum surge reverse current	I_{RSM}	10/10000μs, Non-repetitive ※	200	A
Maximum surge reverse power	P_{RSM}	10/1000μs, Non-repetitive ※	8000	W
Maximum surge reverse power	P_{RSM}	10/10000μs, Non-repetitive ※	4000	W
Continuous (direct) reverse voltage	$V_{R(DC)}$		12	V
Power dissipation	P		5	W

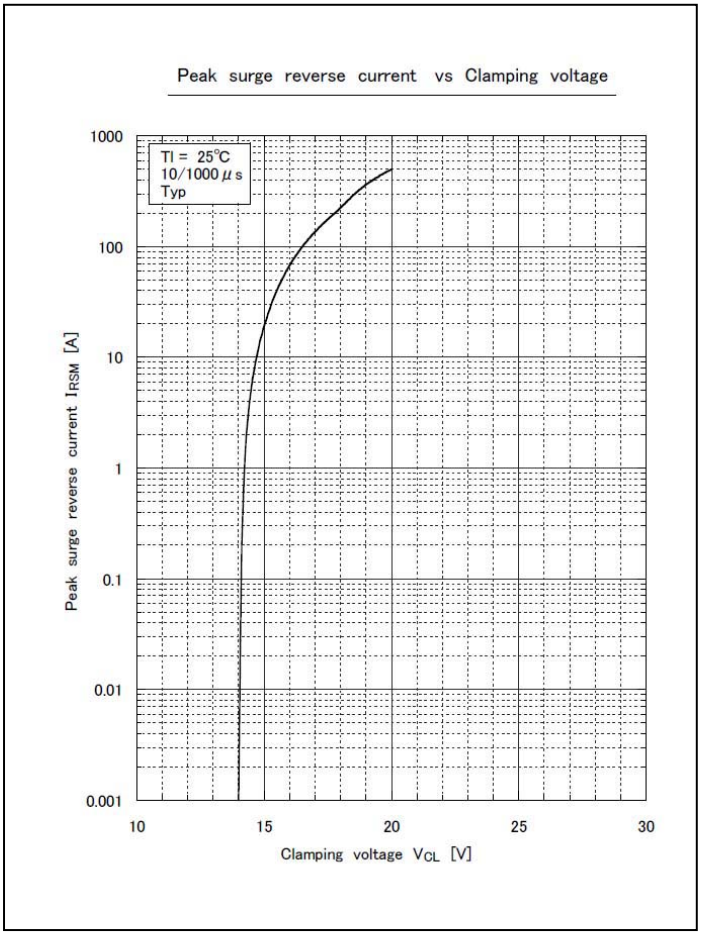
※ ：See the original Specifications

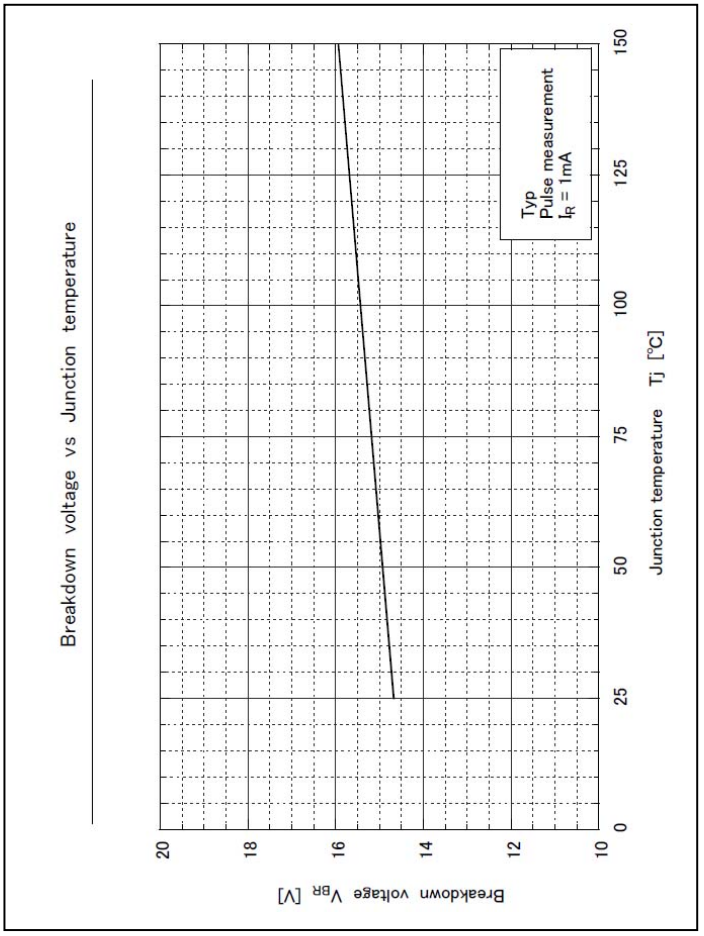
Electrical Characteristics (unless otherwise specified : Tl=25°C)

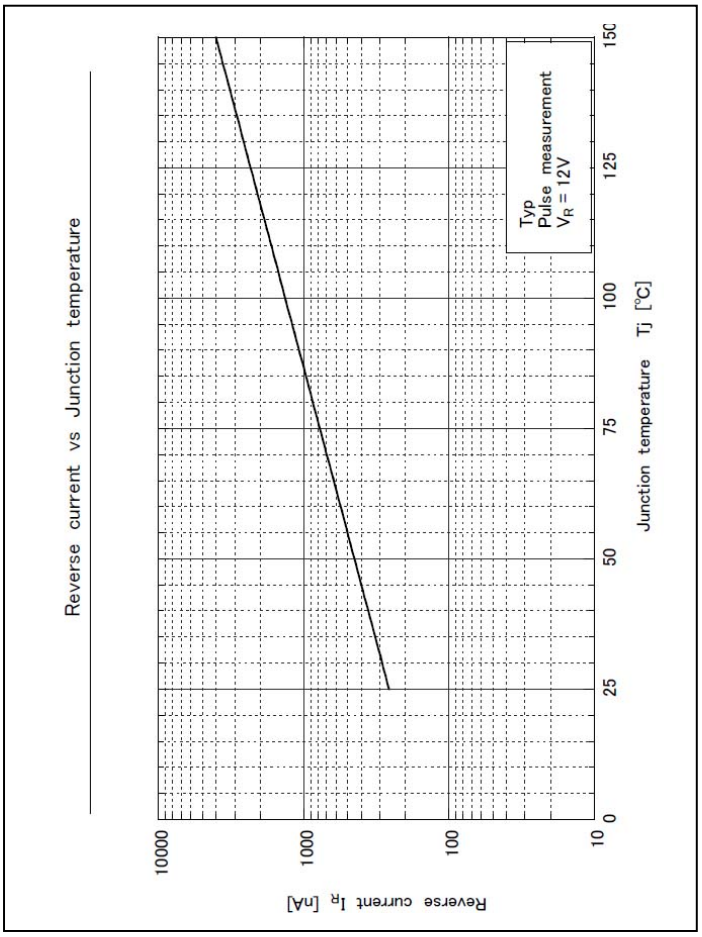
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Breakdown voltage	V_{BR}	IR=1mA, Pulse measurement	13		15	V
Reverse current	I_R	VR=12V, Pulse measurement			10	μA
Thermal resistance	Rth(j-l)	Junction to lead, On glass-epoxy substrate ※			5	°C/W
Thermal resistance	Rth(j-a)	Junction to ambient, On glass-epoxy substrate ※			45	°C/W
Forward voltage	V_F	IF=30A, Pulse Measurement			1.3	V
Temperature coefficient	rz				0.08	%/°C

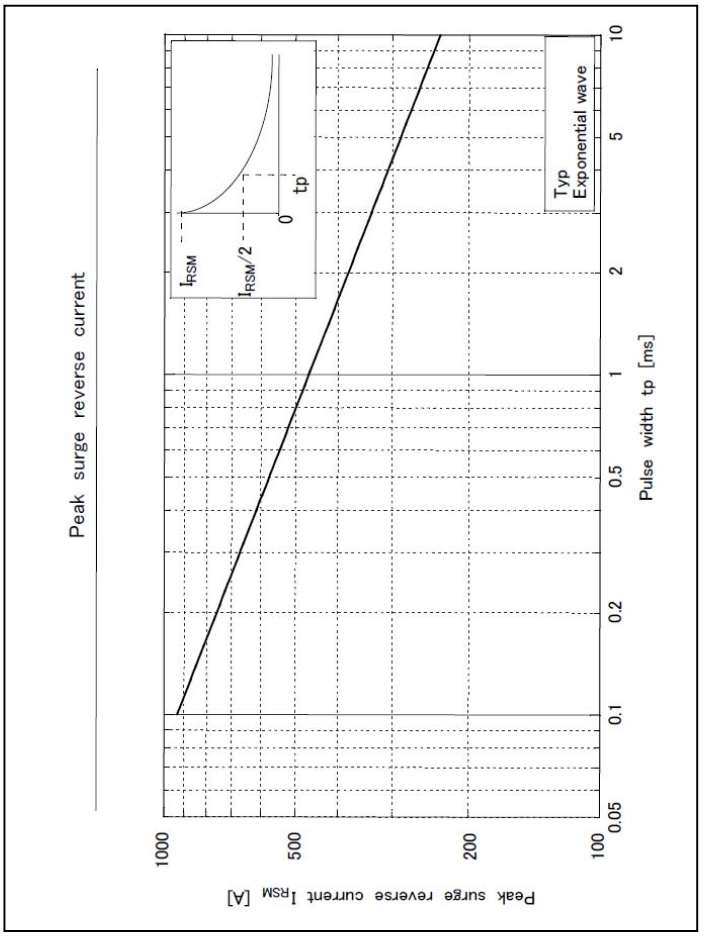
※ ：See the original Specifications

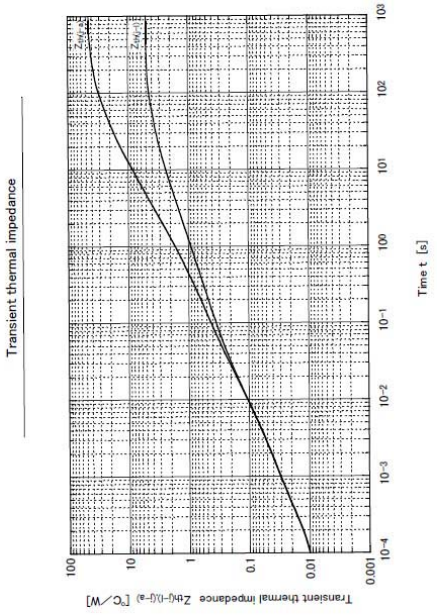
CHARACTERISTIC DIAGRAMS







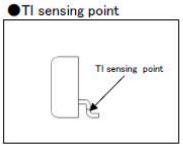




●Substrate detail

Type	Glass-epoxy
Size	2 inch²
Thickness	1mm
Conductor thickness	35μm
Pattern area	242mm²

●TI sensing point

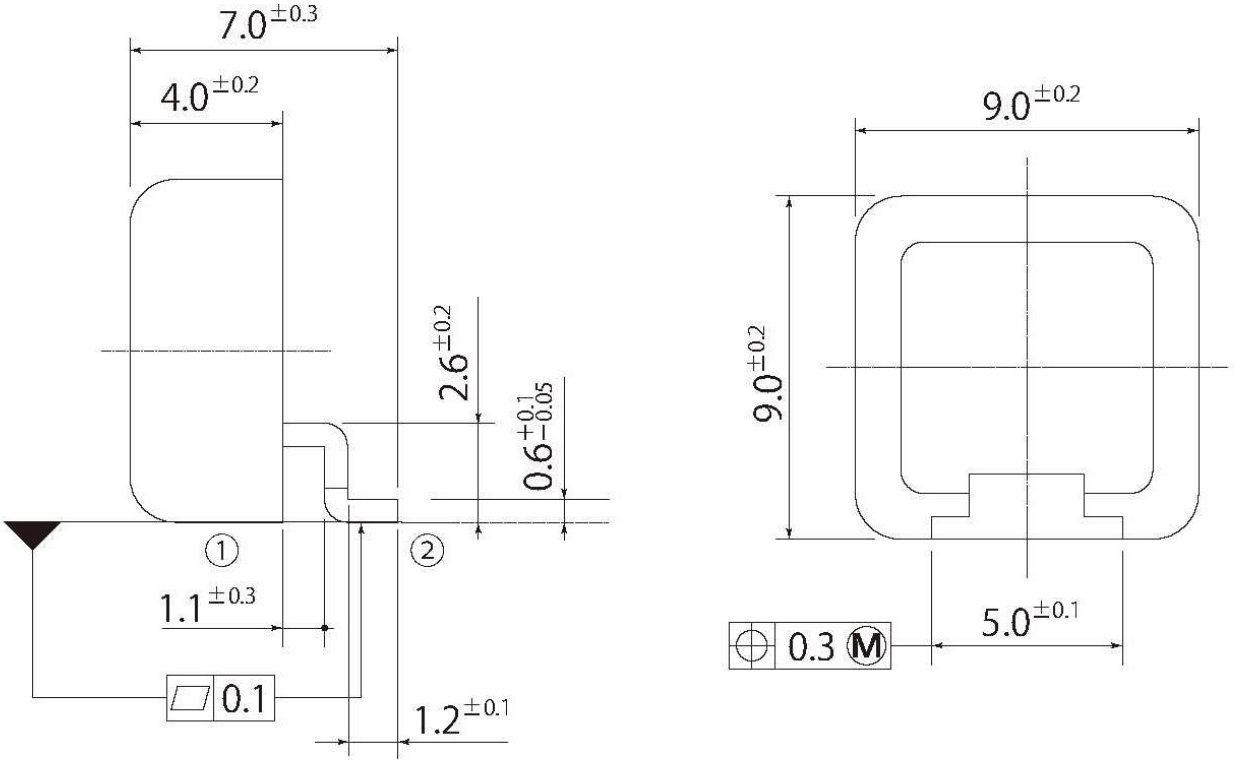


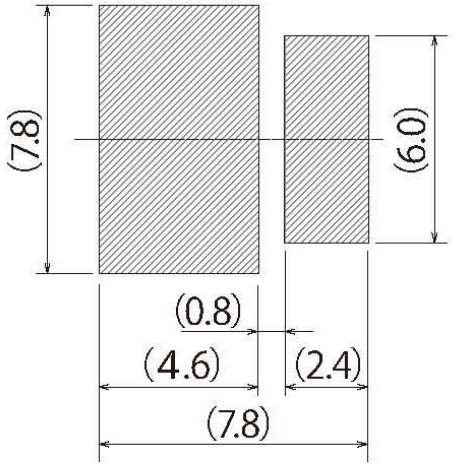
Outline Dimensions

unit:mm

E1

JEDEC Code	–
JEITA Code	–
House Name	MCP





Referential Soldering Pad

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

Notes

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