

ST60-48MF

TVS  
100A, 6000W

Feature

- Peak pulse power:6000W
- 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		150	°C
Maximum surge reverse current	I <sub>RSM</sub>	10/1000μs, Non-repetitive ※	100	A
Maximum surge reverse current	I <sub>RSM</sub>	10/10000μs, Non-repetitive	55	A
Maximum surge reverse power	P <sub>RSM</sub>	10/1000μs, Non-repetitive	6000	W
Maximum surge reverse power	P <sub>RSM</sub>	10/10000μs, Non-repetitive	3000	W
Continuous (direct) reverse voltage	V <sub>R(DC)</sub>		40	V
Power dissipation	P		5	W

※ :See the original Specifications

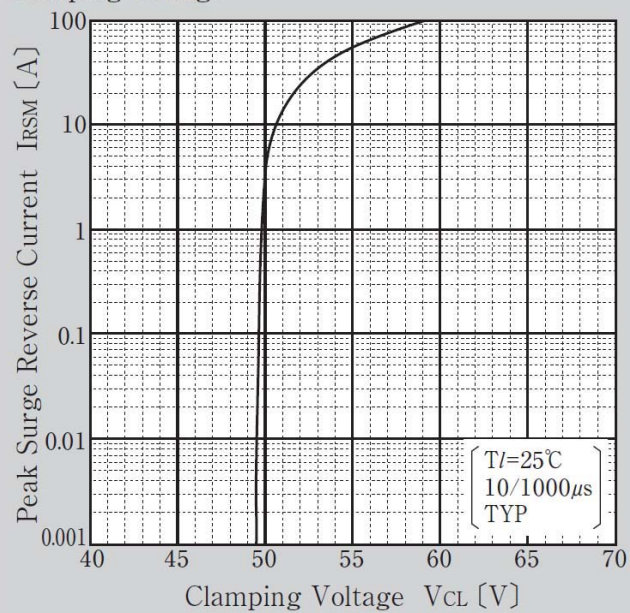
**Electrical Characteristics** (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Breakdown voltage	$V_{BR}$	IR=1mA	43.2		54	V
Reverse current	$I_R$	VR=40V, Pulse measurement			5	$\mu A$
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				0.15	%/°C

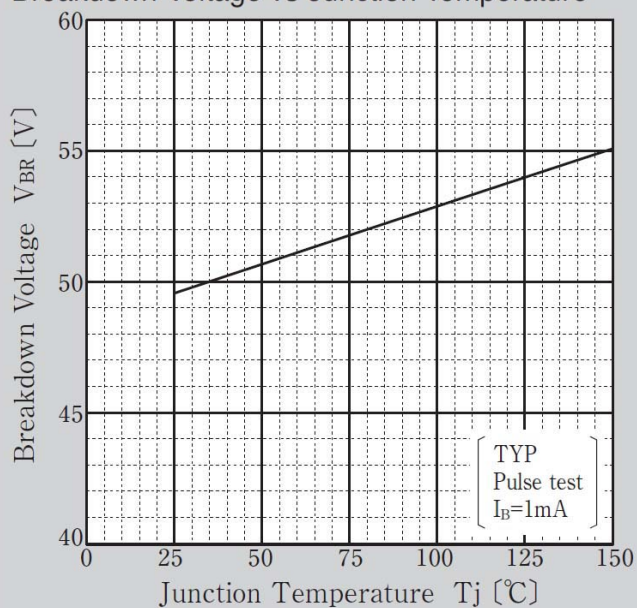
※ :See the original Specifications

## CHARACTERISTIC DIAGRAMS

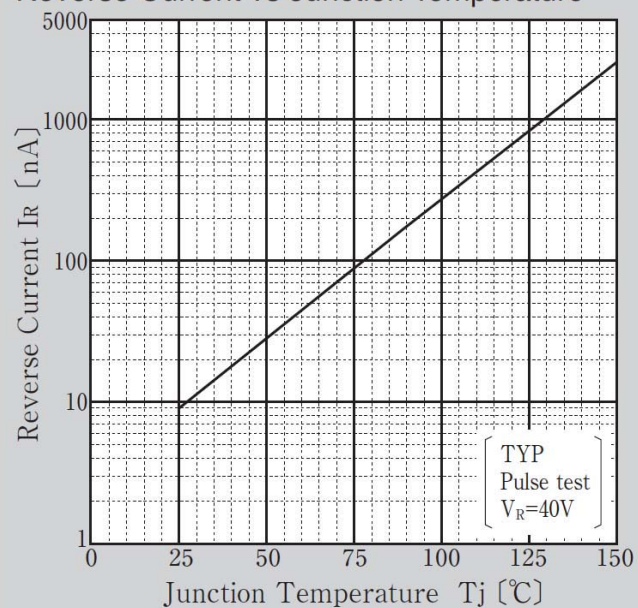
Clamping Voltage



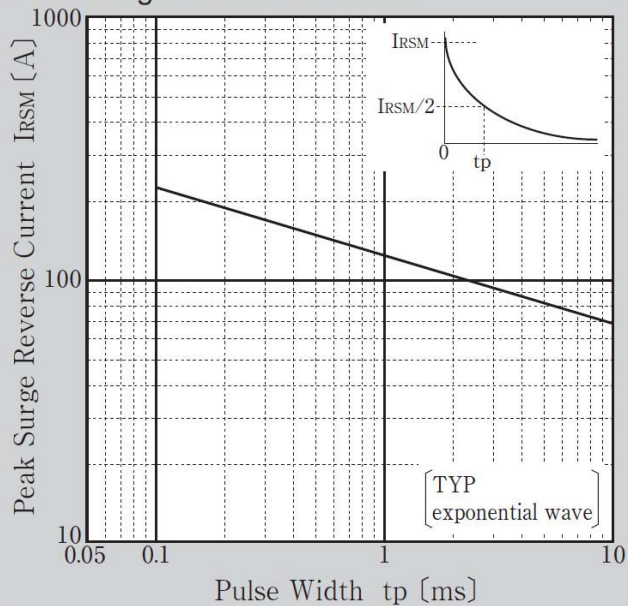
Breakdown Voltage vs Junction Temperature



Reverse Current vs Junction Temperature

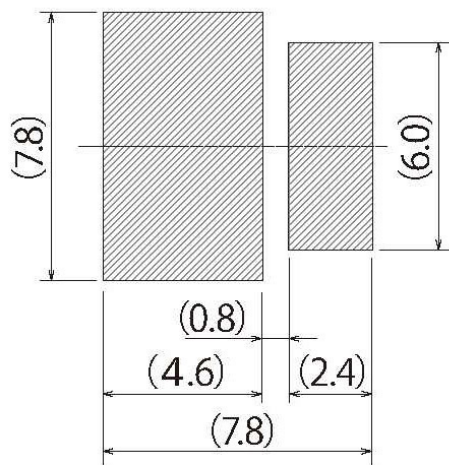
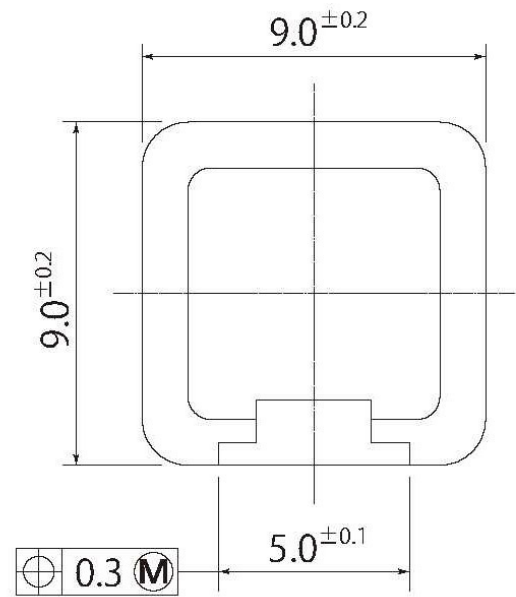
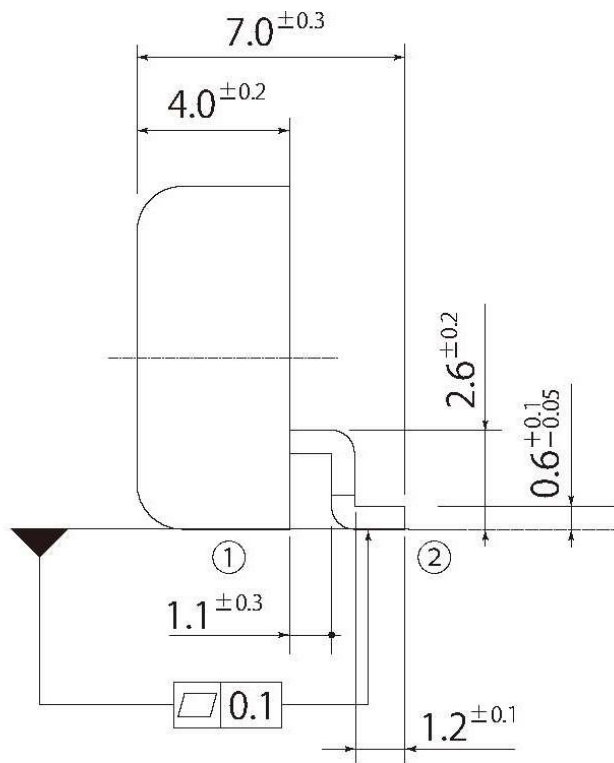


Peak Surge Reverse Current



# E1

JEDEC Code	—
JEITA Code	—
House Name	MCP



### Referential Soldering Pad

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

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