

# ST70-27MF

TVS

180A, 7000W

## Feature

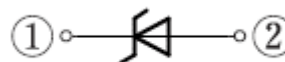
- Peak pulse power:7000W
- SMD
- Available for automotive use
- Pb free terminal
- RoHS:Yes

## 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>		150	°C
Maximum surge reverse current	I <sub>RSM</sub>	10/1000μs, Non-repetitive *	180	A
Maximum surge reverse current	I <sub>RSM</sub>	10/10000μs, Non-repetitive	100	A
Maximum surge reverse power	P <sub>RSM</sub>	10/1000μs, Non-repetitive	7000	W
Maximum surge reverse power	P <sub>RSM</sub>	10/10000μs, Non-repetitive	3500	W
Continuous (direct) reverse voltage	V <sub>R(DC)</sub>		23	V
Power dissipation	P		5	W

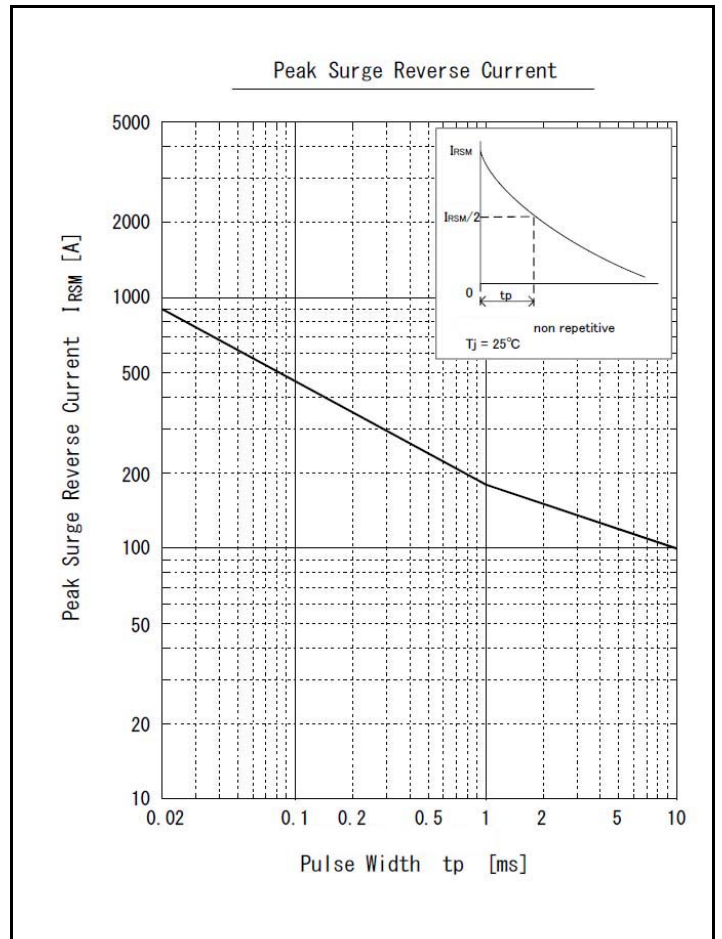
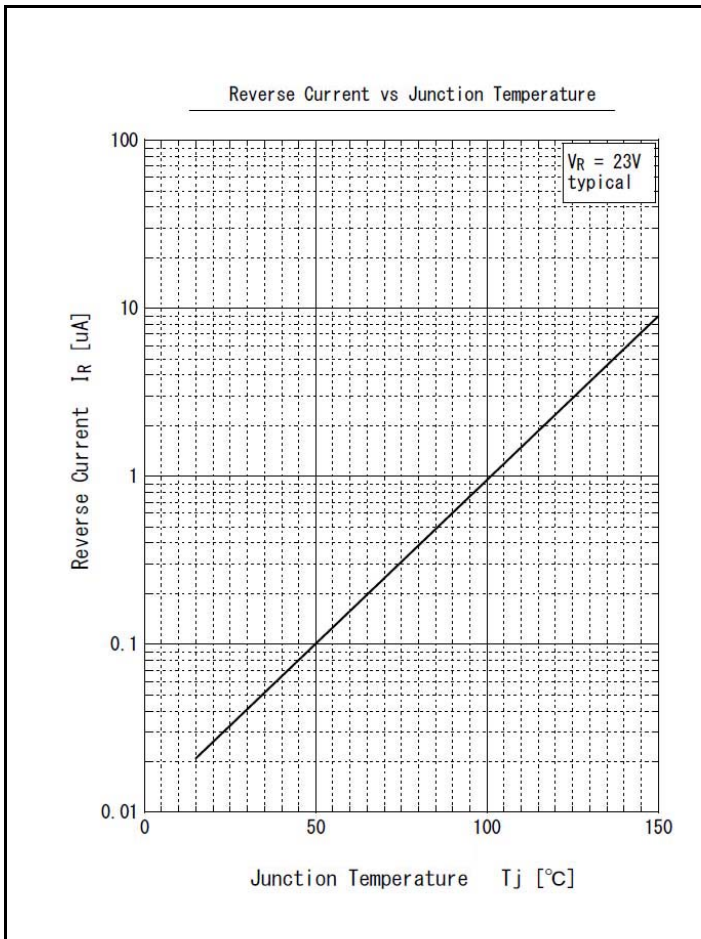
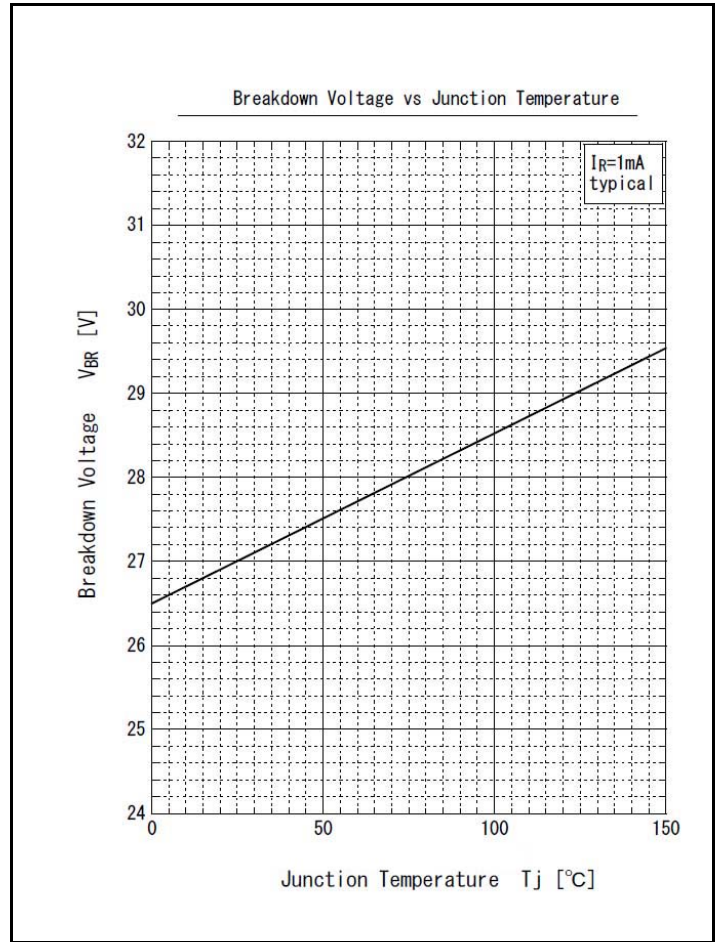
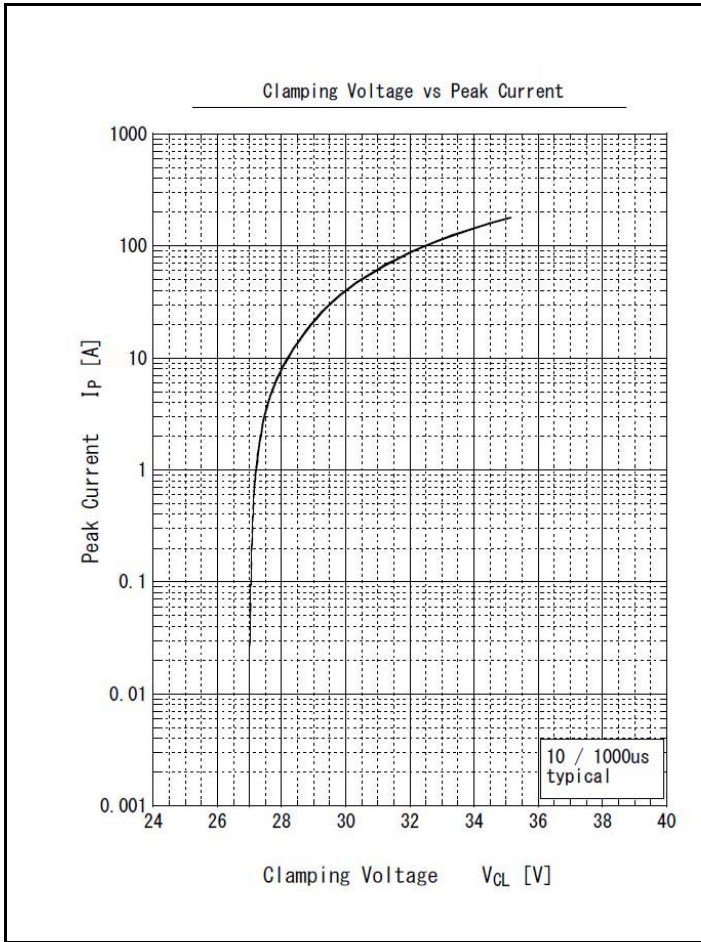
\* :See the original Specifications

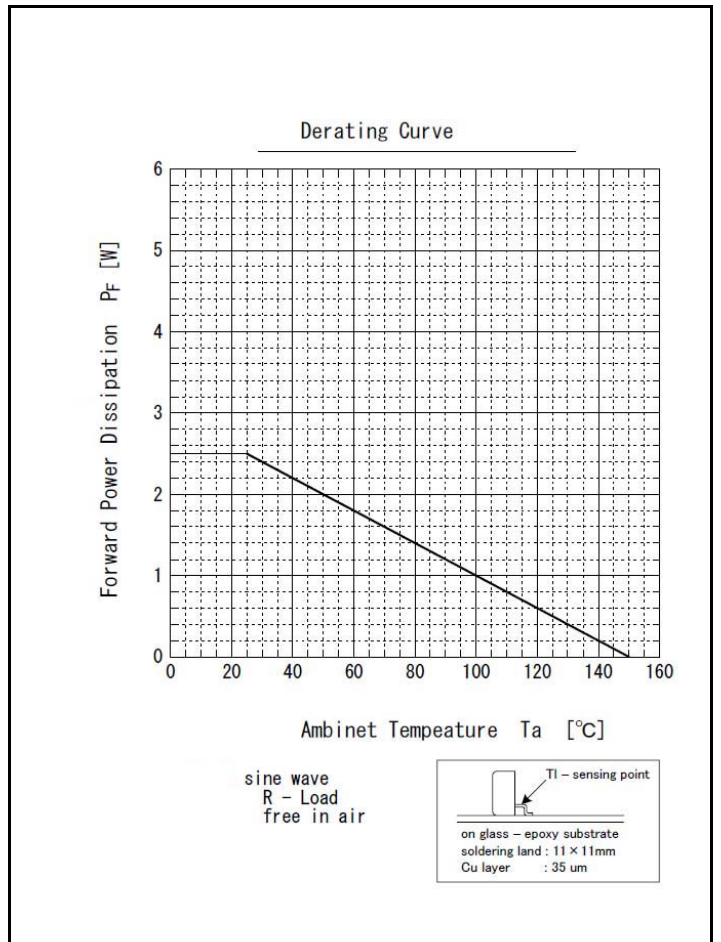
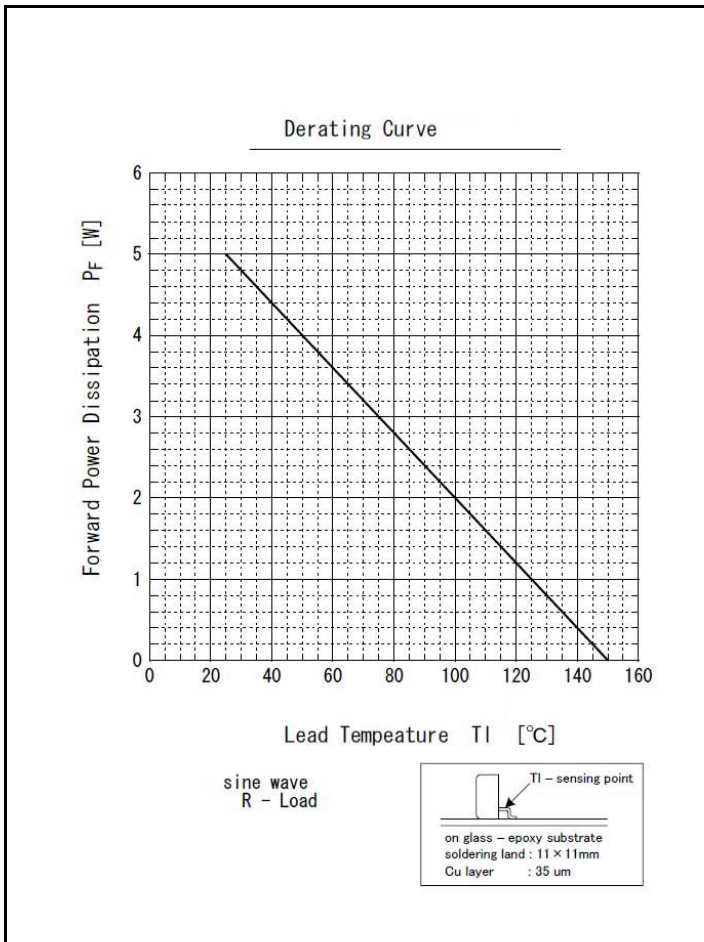
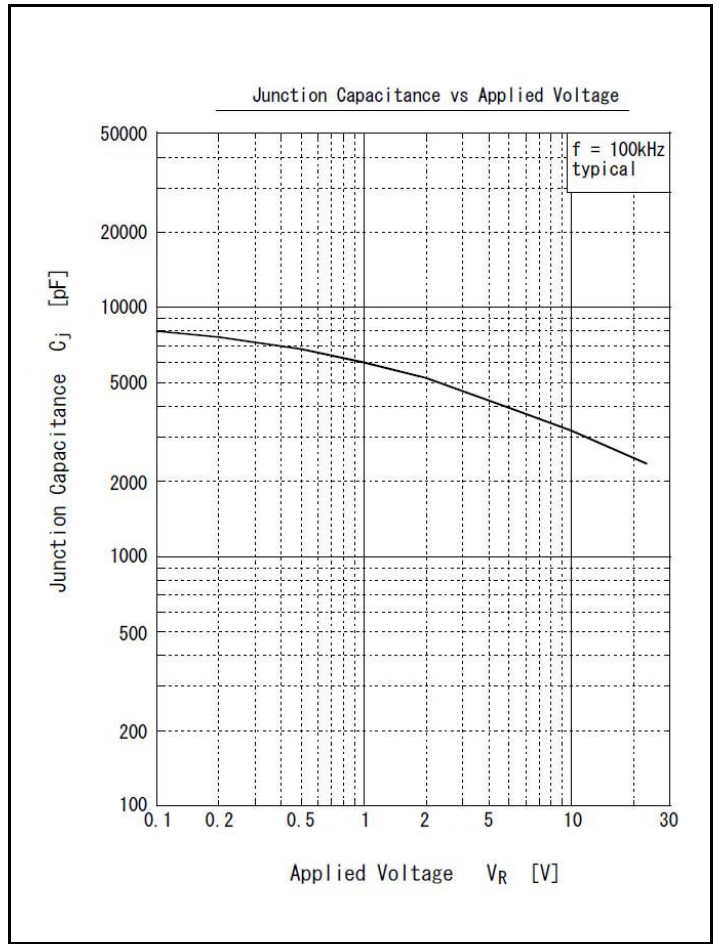
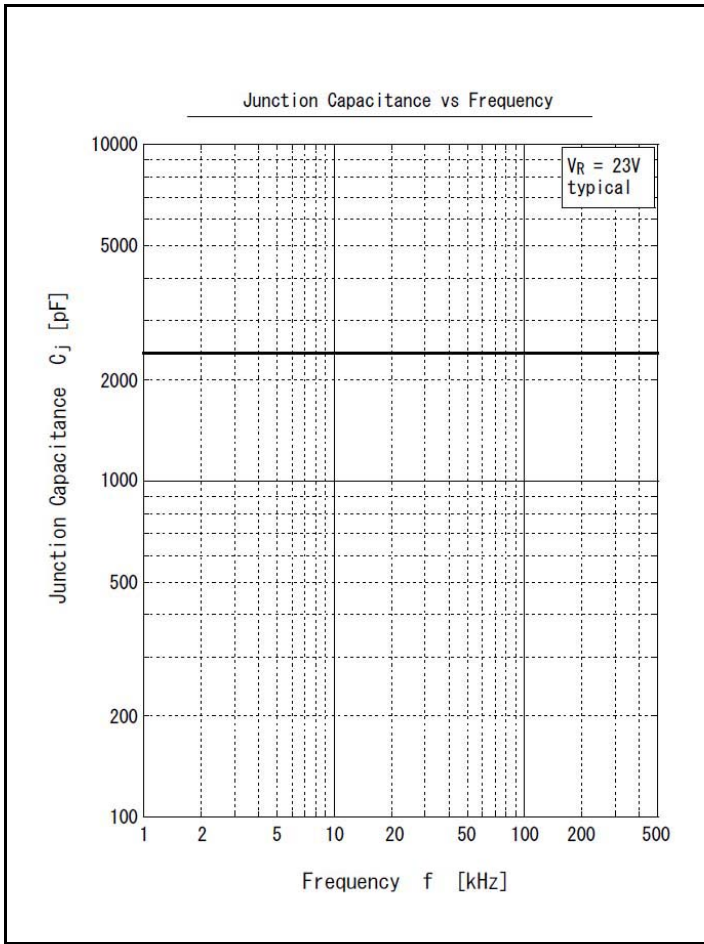
**Electrical Characteristics** (unless otherwise specified : Tl=25°C)

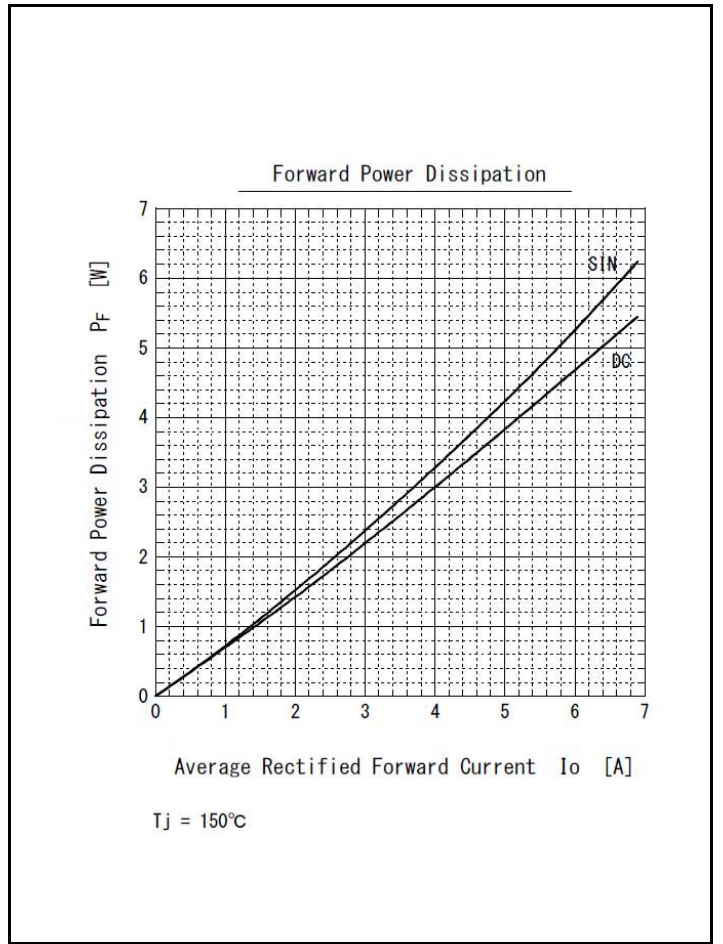
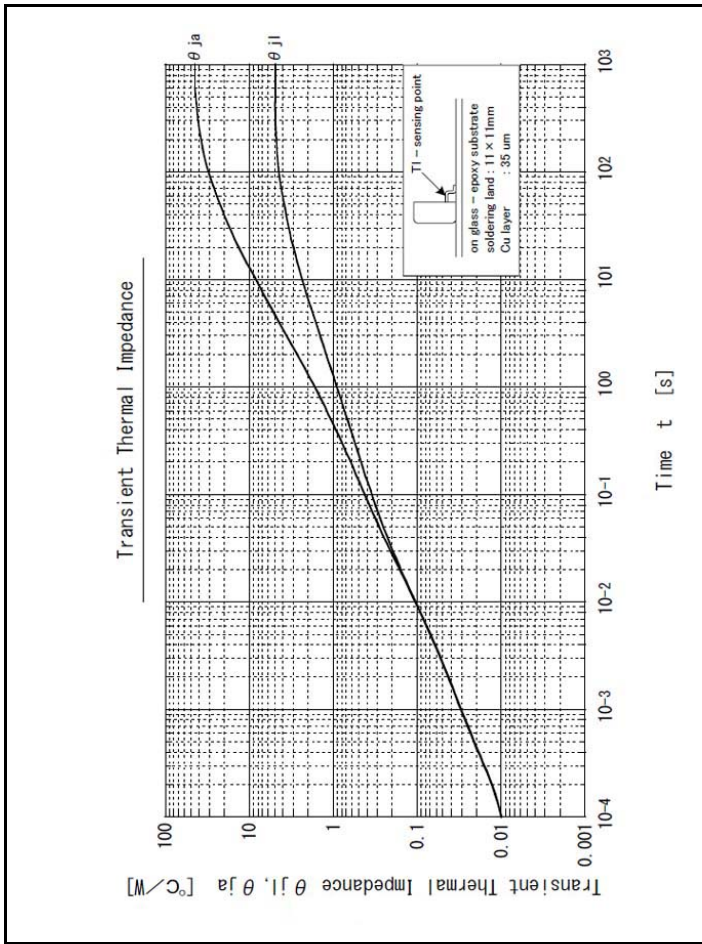
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Breakdown voltage	$V_{BR}$	$I_R=1mA$	24.3		29.7	V
Reverse current	$I_R$	$V_R=23V$ , Pulse measurement			5	$\mu A$
Thermal resistance	$R_{th(j-l)}$	Junction to lead, On glass-epoxy substrate			5	$^{\circ}C/W$
Thermal resistance	$R_{th(j-a)}$	Junction to ambient, On glass-epoxy substrate			45	$^{\circ}C/W$
Forward voltage	$V_F$	$I_F=30A$ , Pulse Measurement			1.3	V
Temperature coefficient	$r_z$				0.09	$\%/^{\circ}C$

\* :See the original Specifications

# CHARACTERISTIC DIAGRAMS

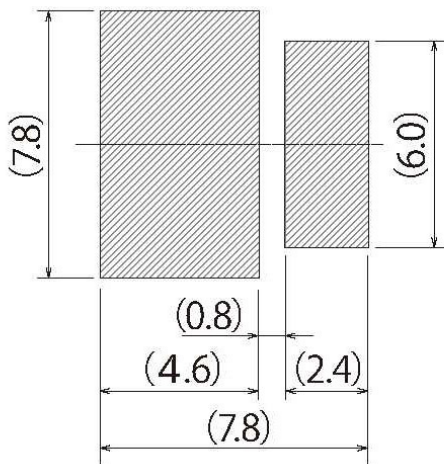
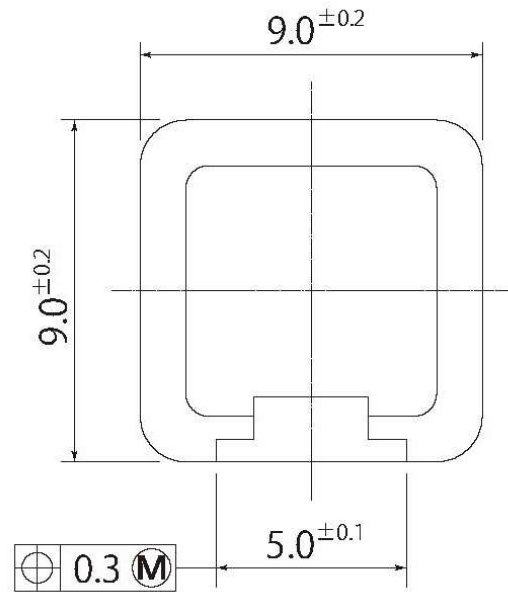
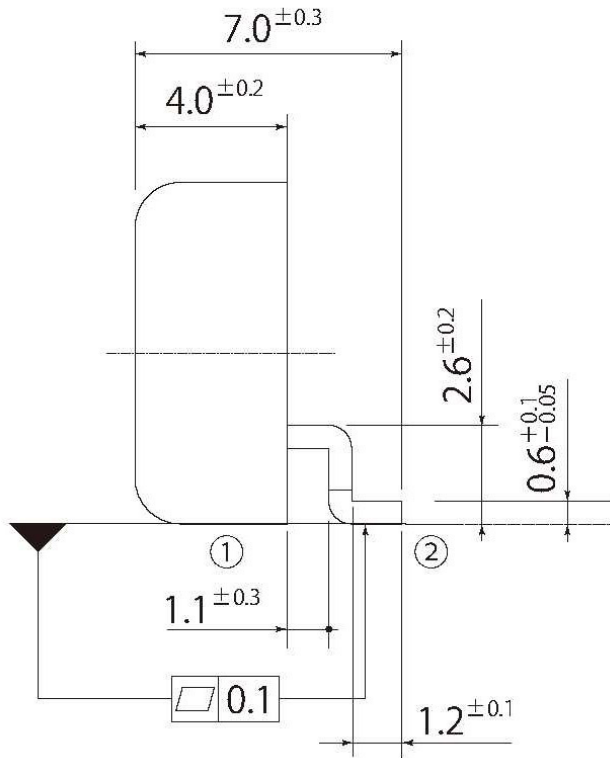






E1

JEDEC Code	—
JEITA Code	—
House Name	MCP



Referential Soldering Pad

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