

D15FY10ST

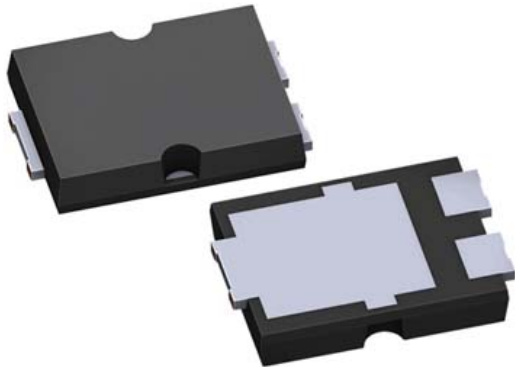
Schottky Barrier Diodes
100V, 15A

Feature

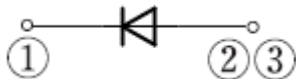
- Permit high current with a small package
- Tj=175°C
- Ultra low I_R
- Based on AEC-Q101
- Halogen free
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): FY
Package (JEDEC Code): TO-277A similar



Equivalent circuit



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

Item	Symbol	Conditions	Ratings	Unit
Storage temperrature	Tstg		-55 to 175	°C
Junction temperature	Tj		-55 to 175	°C
Repetitive peak reverse voltage	V _{RRM}		100	V
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, With heatsink ,Tl=141°C ※	15	A
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On alumina substrate, Ta=25°C ※	3.9	A
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25°C ※	3.6	A
Surge forward current	I _{FSM}	50Hz sine wave, Non-repetitive, 1 cycle, Peak value, Tj=25°C	250	A

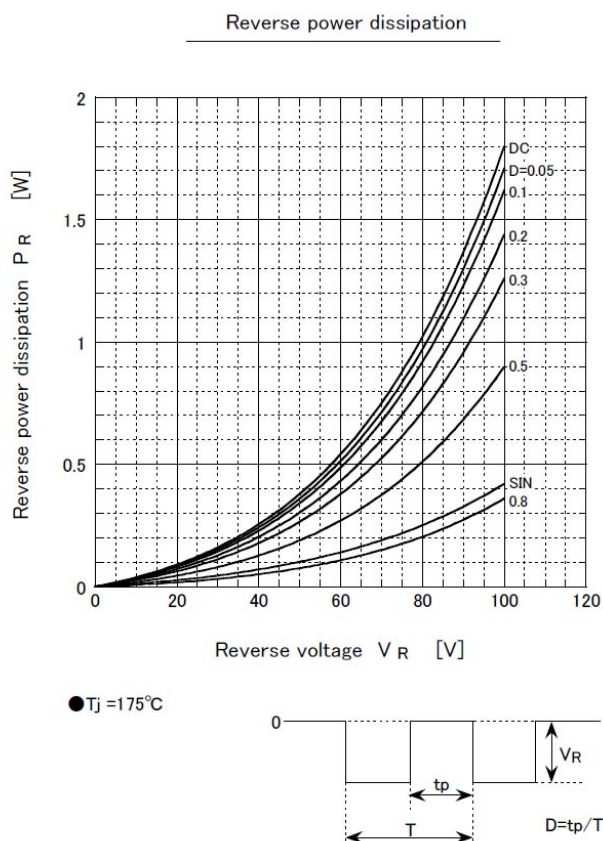
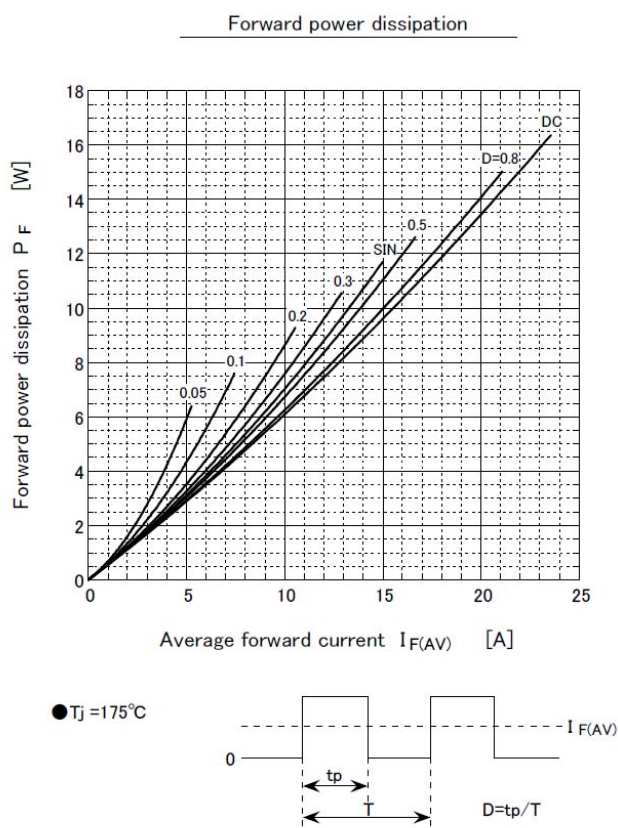
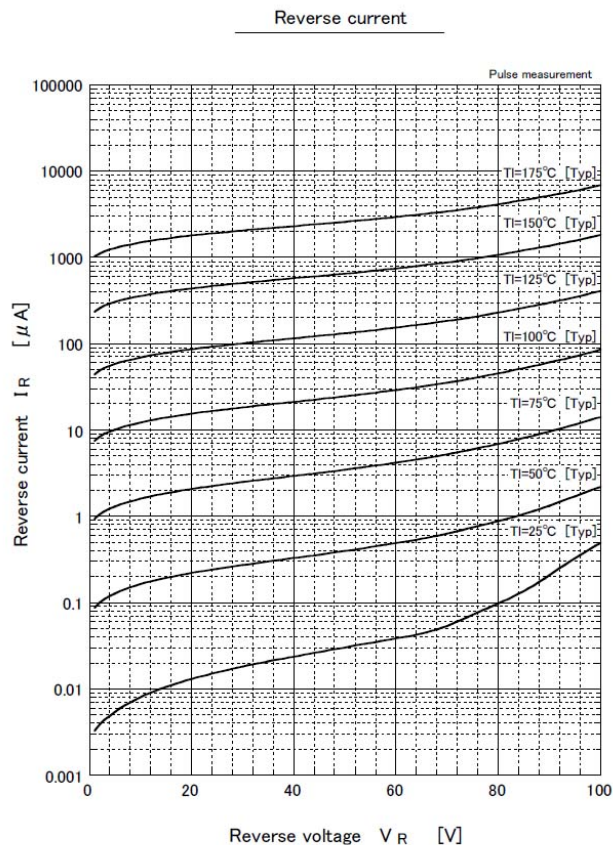
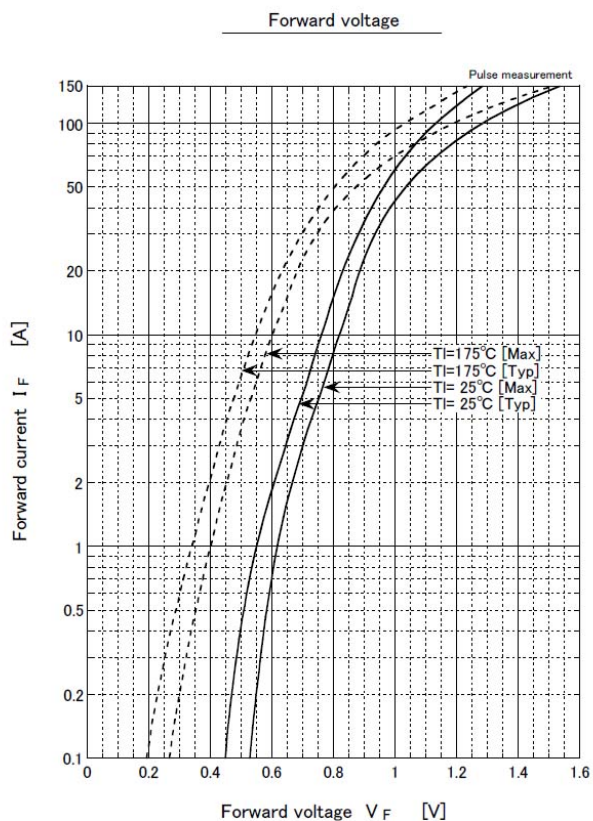
※ : See the original Specifications

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

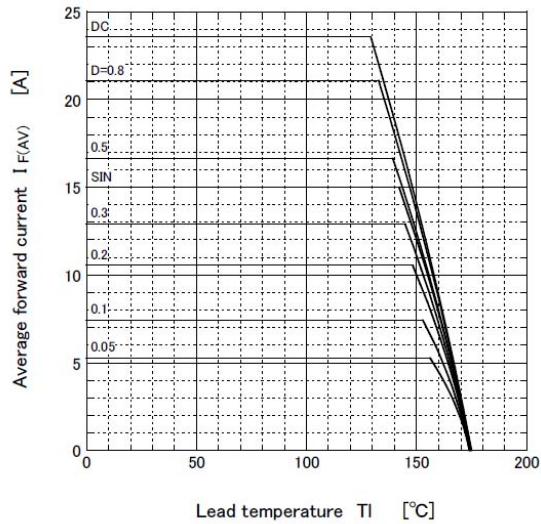
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=15A, Pulse measurement			0.86	V
Reverse current	I_R	VR=100V, Pulse measurement			0.04	mA
Total capacitance	Ct	f=1MHz, VR=10V		242		pF
Thermal resistance	Rth(j-l)	Junction to lead, With heatsink ※			2.8	°C/W
Thermal resistance	Rth(j-a)	Junction to ambient, On alumina substrate ※			60	°C/W
Thermal resistance	Rth(j-a)	Junction to ambient, On glass-epoxy substrate ※			65	°C/W

※ :See the original Specifications

CHARACTERISTIC DIAGRAMS



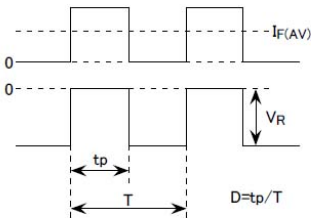
Derating curve



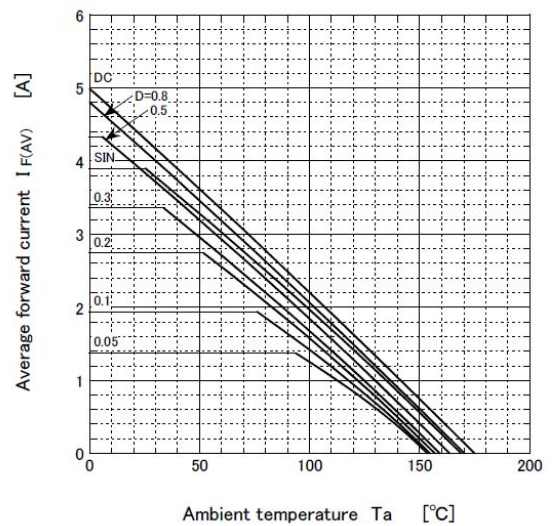
- $V_R = 50V$
R-load
With heatsink

- Substrate detail

Type	Alumina
Size	1 inch ²
Thickness	1mm
Conductor thickness	20 μ m
Pattern area	400mm ²



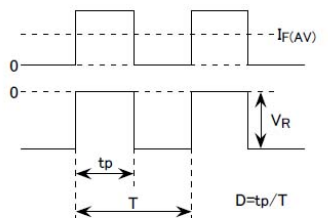
Derating curve



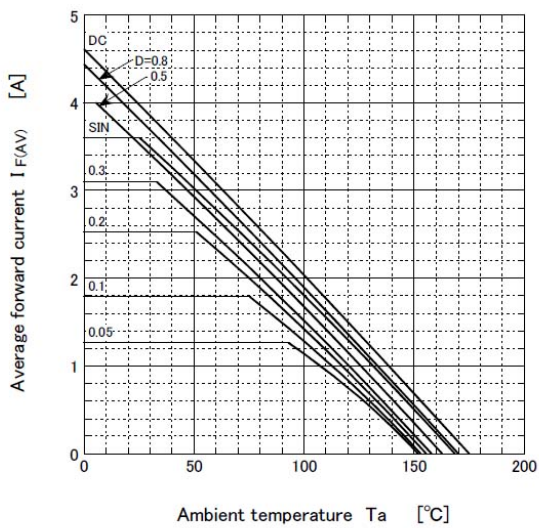
- $V_R = 50V$
R-load
Free in air

- Substrate detail

Type	Alumina
Size	1 inch ²
Thickness	1mm
Conductor thickness	20 μ m
Pattern area	400mm ²



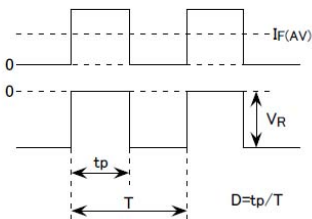
Derating curve



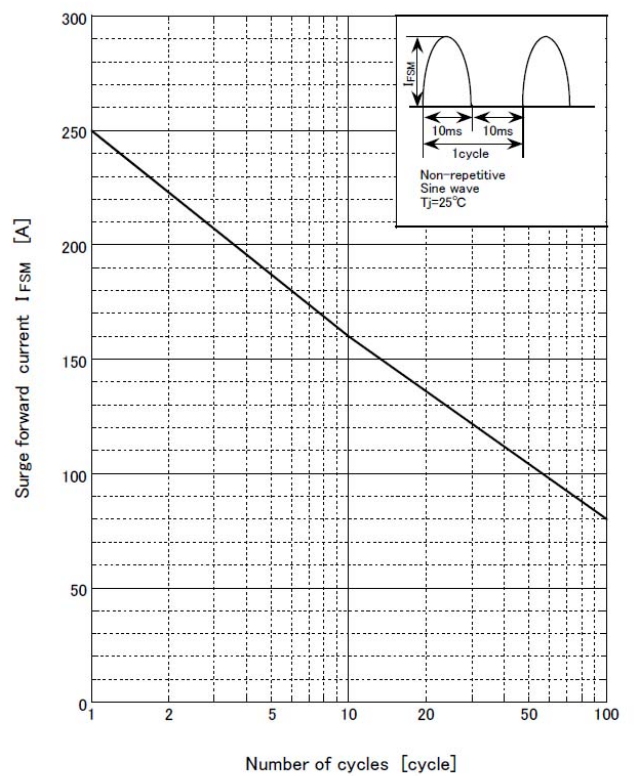
- $V_R = 50V$
R-load
Free in air

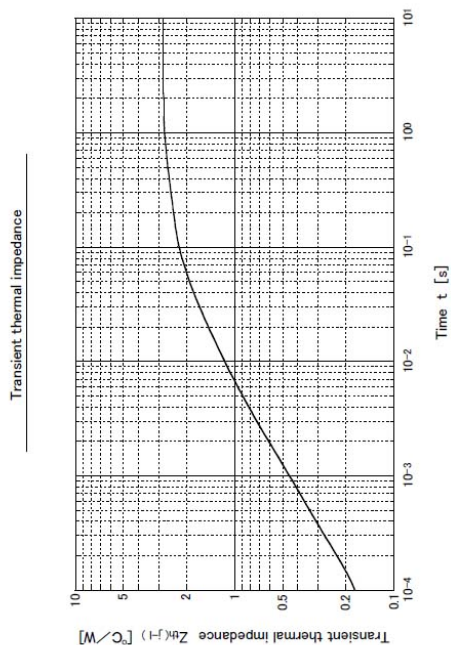
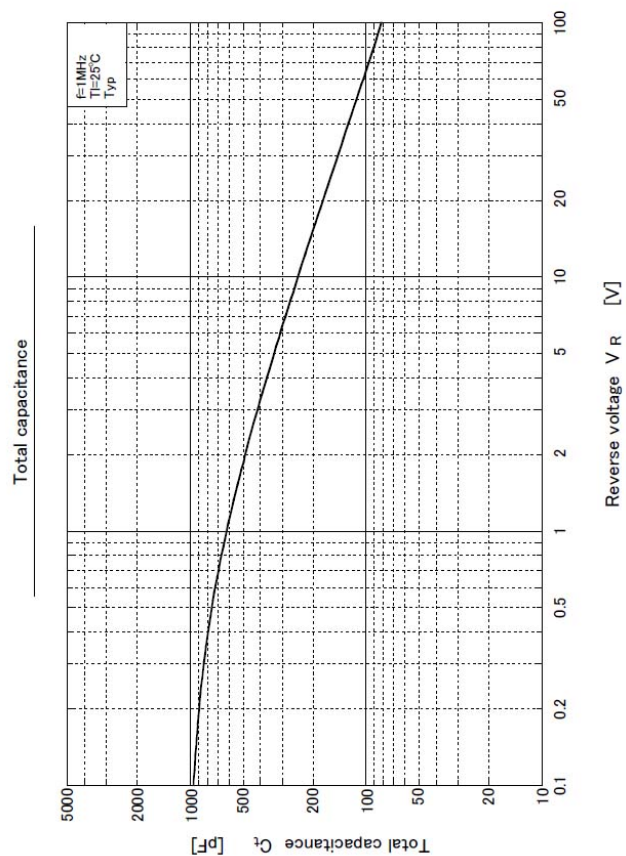
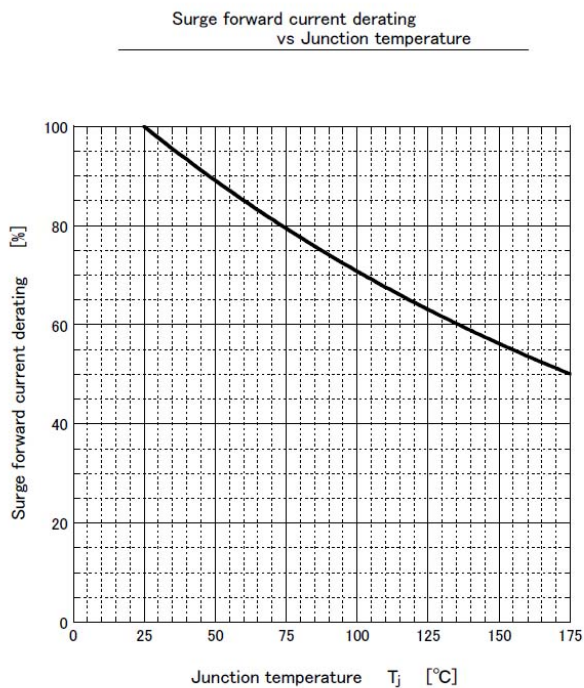
- Substrate detail

Type	Glass-epoxy
Size	1 inch ²
Thickness	1mm
Conductor thickness	35 μ m
Pattern area	400mm ²



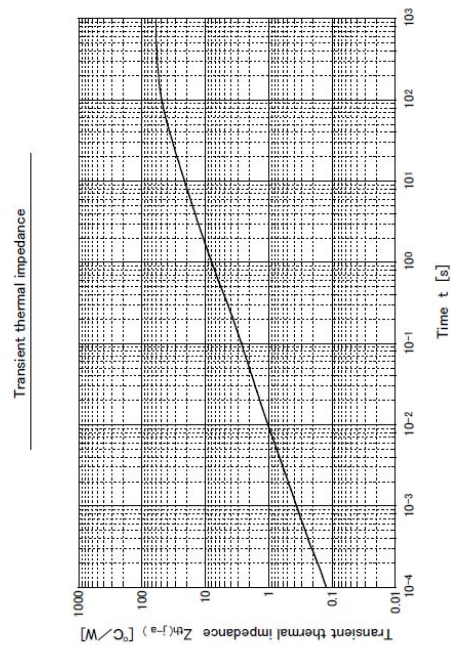
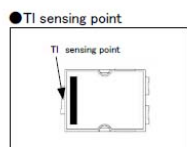
Surge forward current capability





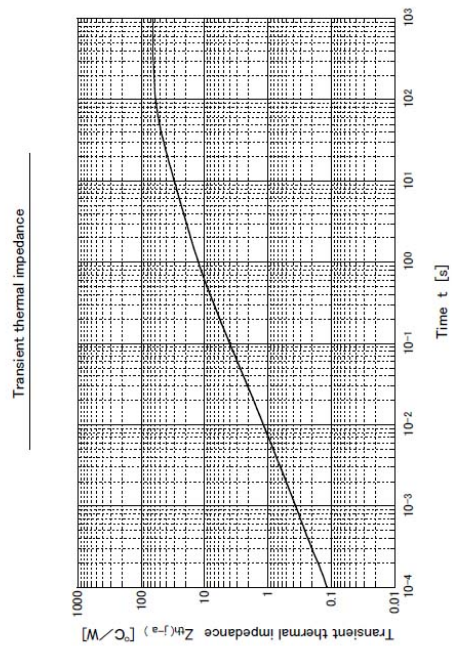
● Substrate detail

Type	Alumina
Size	1 inch ²
Thickness	1mm
Conductor thickness	20 μ m
Pattern area	400mm ²



● Substrate detail

Type	Alumina
Size	1 inch ²
Thickness	1mm
Conductor thickness	20 μ m
Pattern area	400mm ²

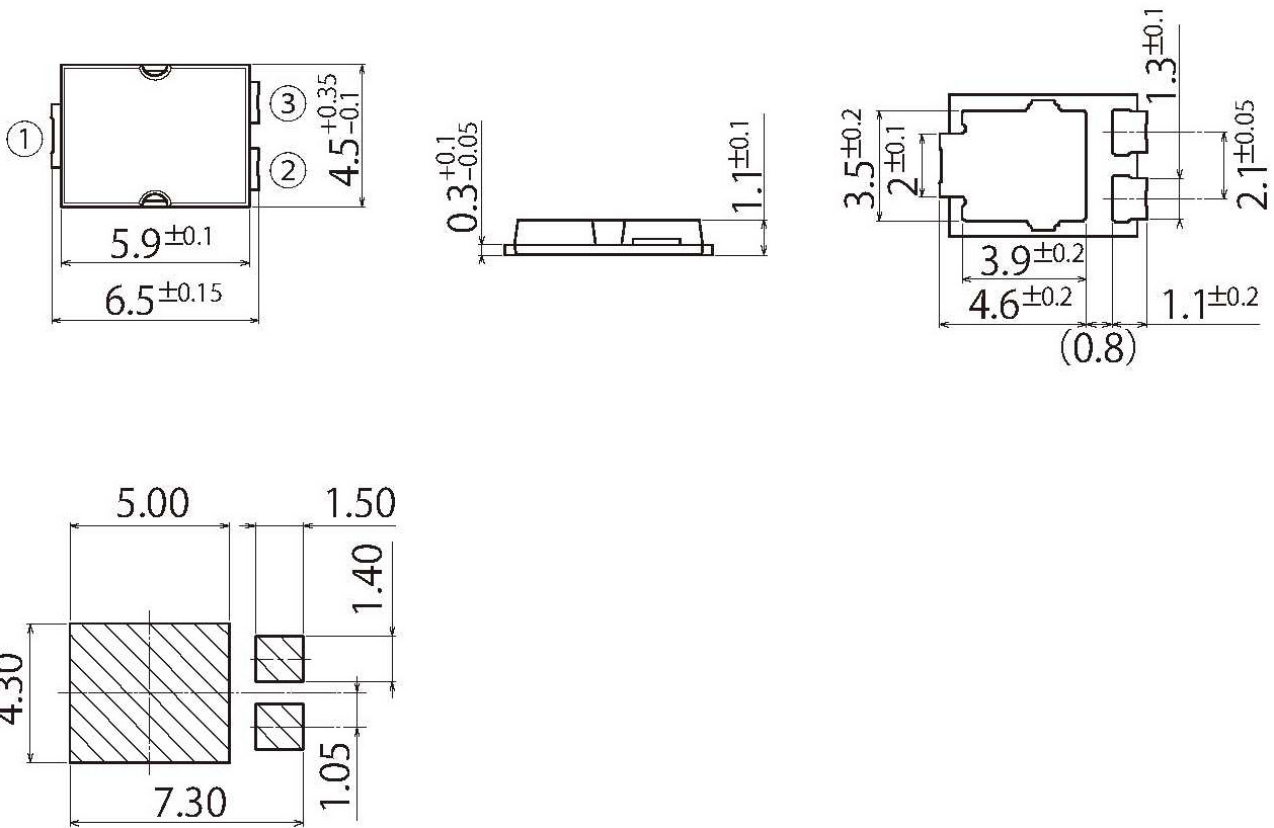


● Substrate detail

Type	Glass epoxy
Size	1 inch ²
Thickness	1mm
Conductor thickness	35 μ m
Pattern area	400mm ²

G4

JEDEC Code	TO-277A similar
JEITA Code	—
House Name	FY



Referential Soldering Pad

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