

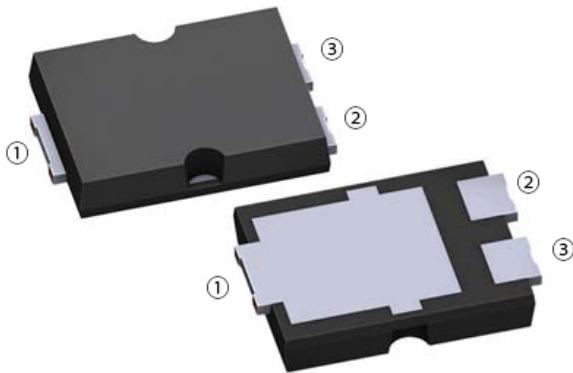
D5FY6ST
Schottky Barrier Diodes
60V, 5A

Feature

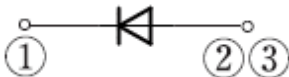
- Permit high current with a small package
- Tj=175°C
- Ultra low I_R
- Based on AEC-Q101
- Halogen free
- Pb free terminal
- RoHS:Yes

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}		60	V
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, With heatsink ,Tl=164°C ※	5	A
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On alumina substrate, Ta=25°C ※	3.7	A
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25°C ※	3.5	A
Surge forward current	I _{FSM}	50Hz sine wave, Non-repetitive, 1cycle, Peak value, Tj=25°C	210	A

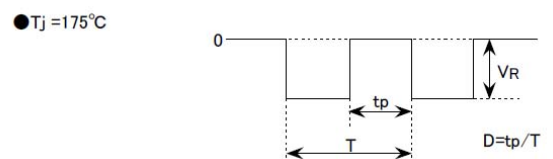
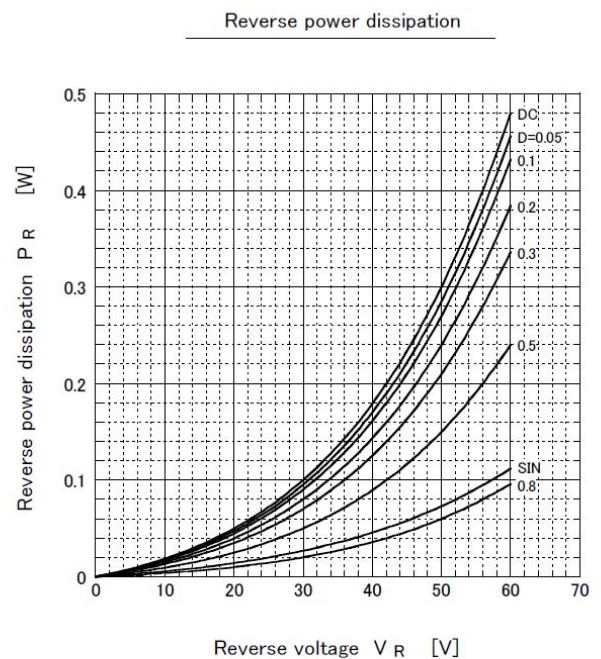
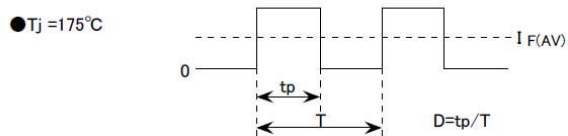
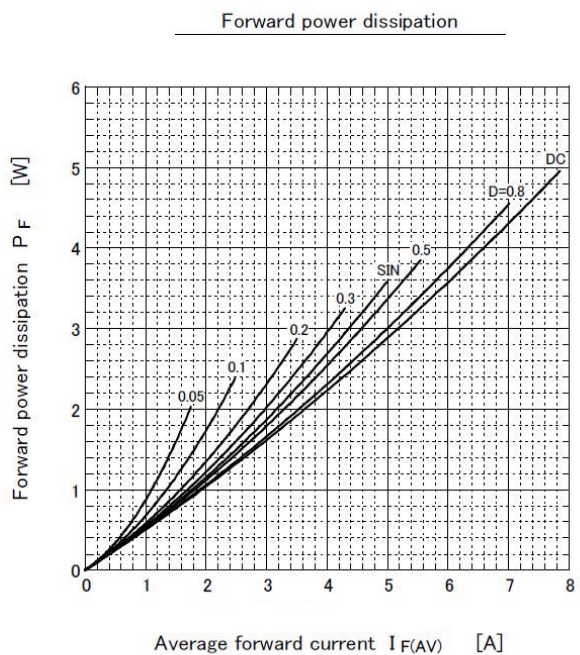
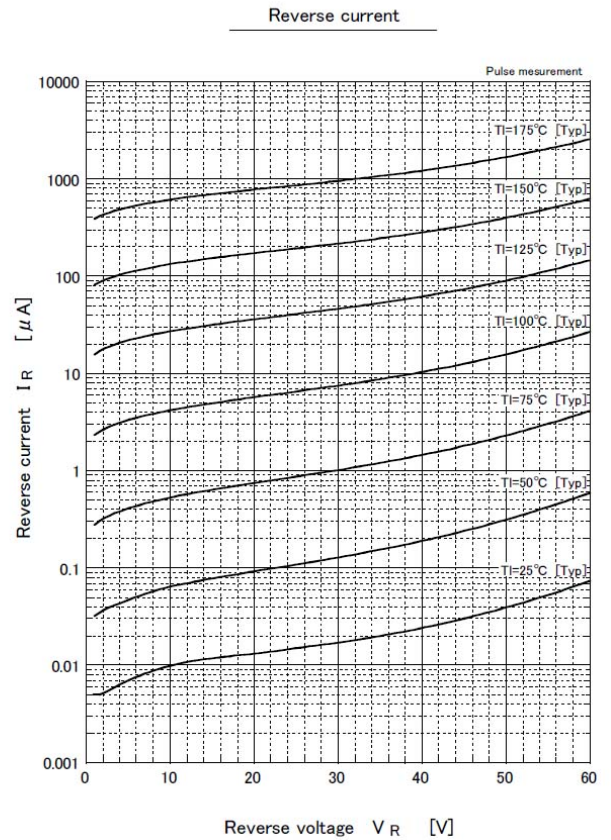
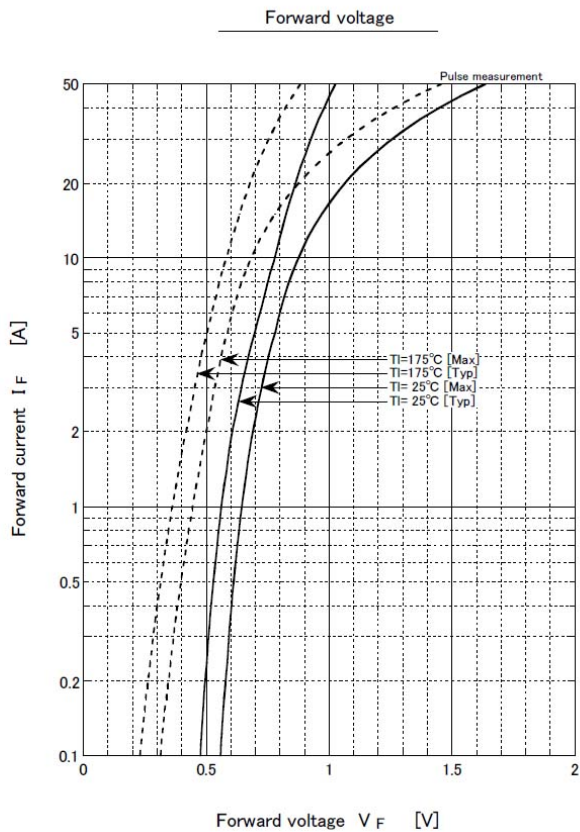
※ :See the original Specifications

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

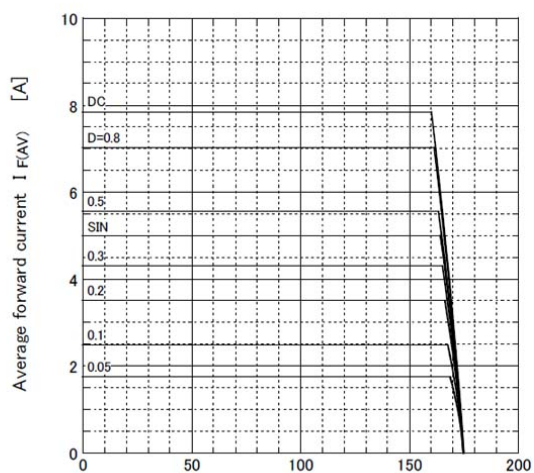
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=5A, Pulse measurement			0.78	V
Reverse current	I_R	VR=60V, Pulse measurement			0.015	mA
Total capacitance	C_t	f=1MHz, VR=10V		148		pF
Thermal resistance	$R_{th(j-l)}$	Junction to lead, With heatsink ※			3	°C/W
Thermal resistance	$R_{th(j-a)}$	Junction to ambient, On alumina substrate ※			60	°C/W
Thermal resistance	$R_{th(j-a)}$	Junction to ambient, On glass-epoxy substrate ※			65	°C/W

※ :See the original Specifications

CHARACTERISTIC DIAGRAMS



Derating curve



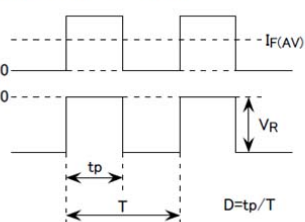
● $V_R = 30V$

R-load
With heatsink

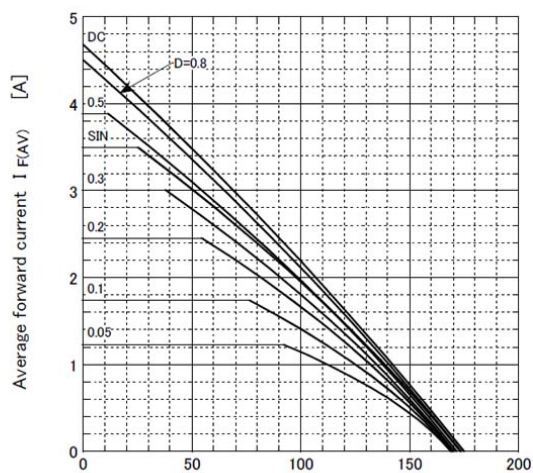
●

Substrate detail

Item	
Substrate	Alumina
Substrate thickness	1mm
Conductor thickness	20 μm
Pattern area	400mm ²



Derating curve



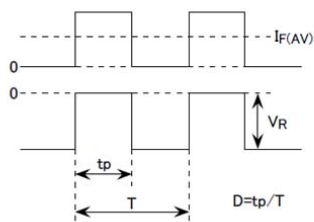
● $V_R = 30V$

R-load
Free in air

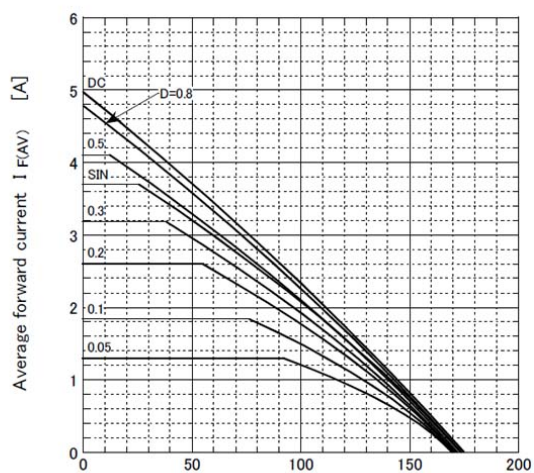
●

Substrate detail

Item	
Substrate	Alumina
Substrate thickness	1mm
Conductor thickness	20 μm
Pattern area	400mm ²



Derating curve



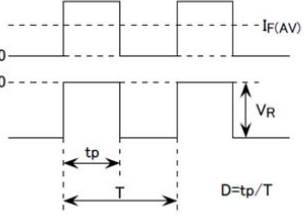
● $V_R = 30V$

R-load
Free in air

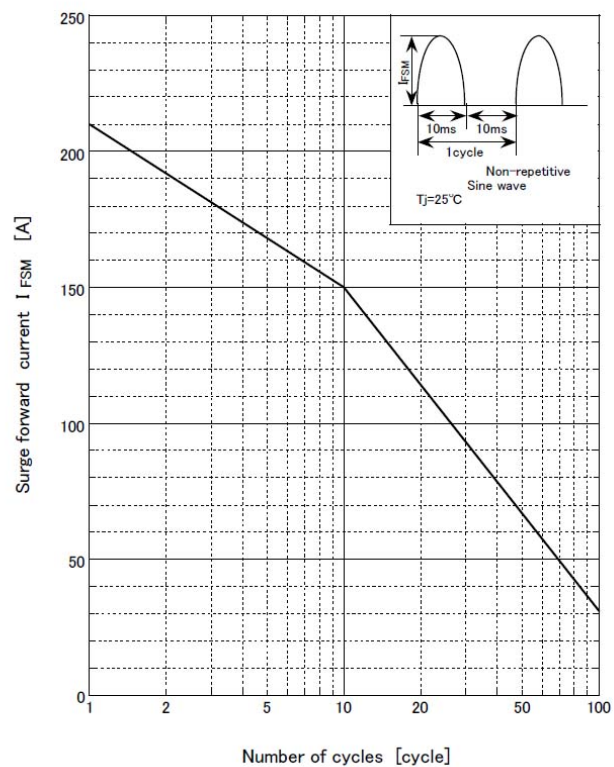
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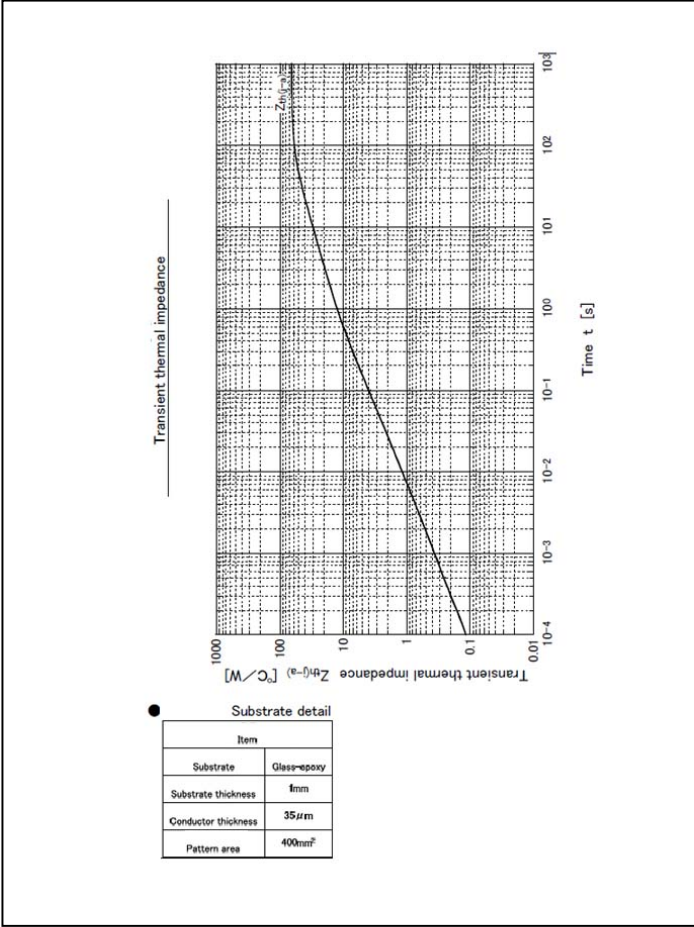
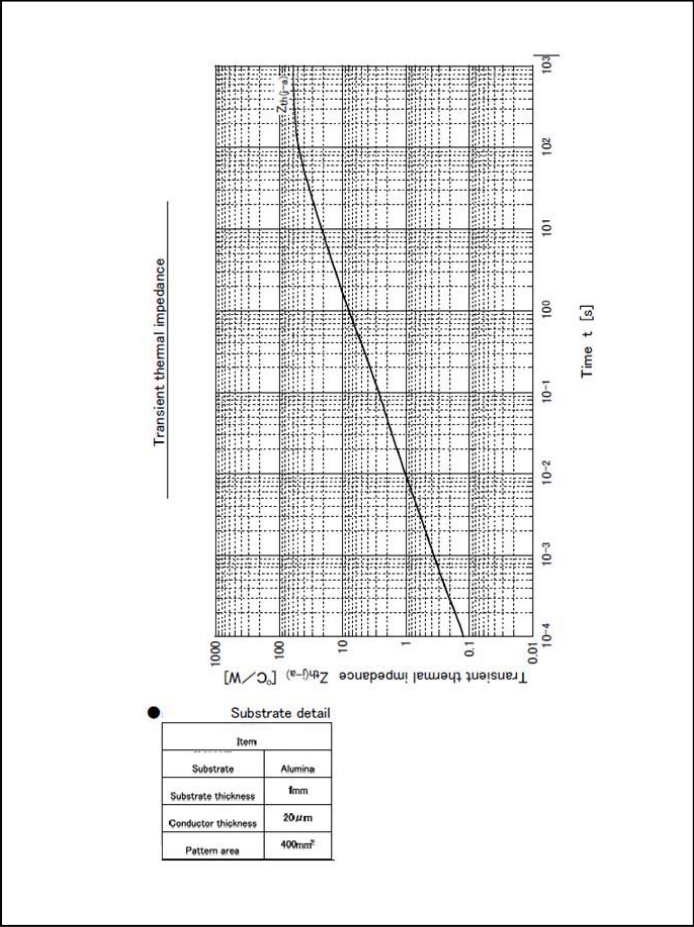
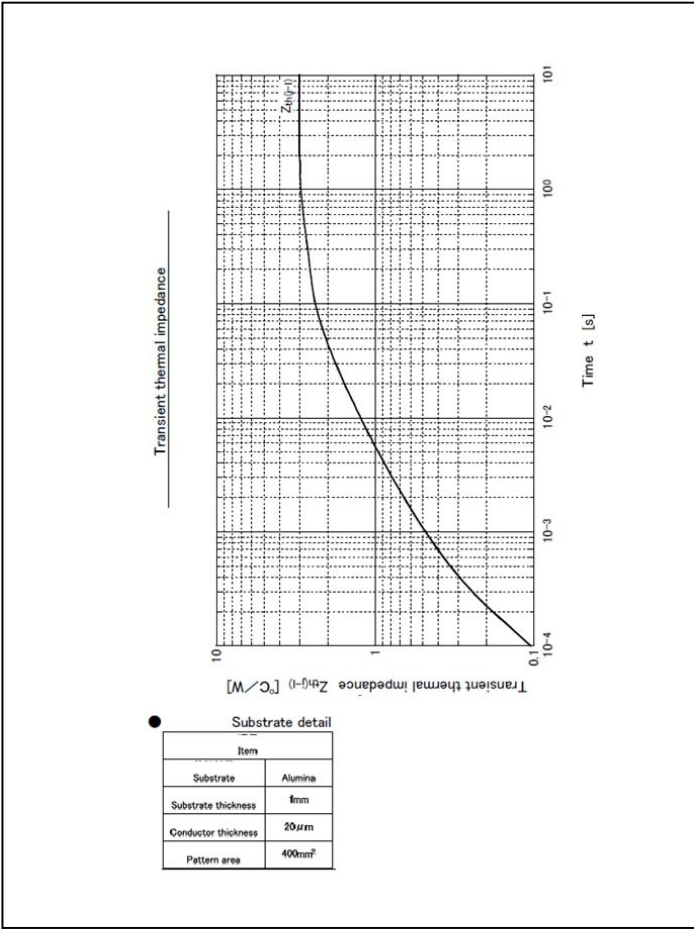
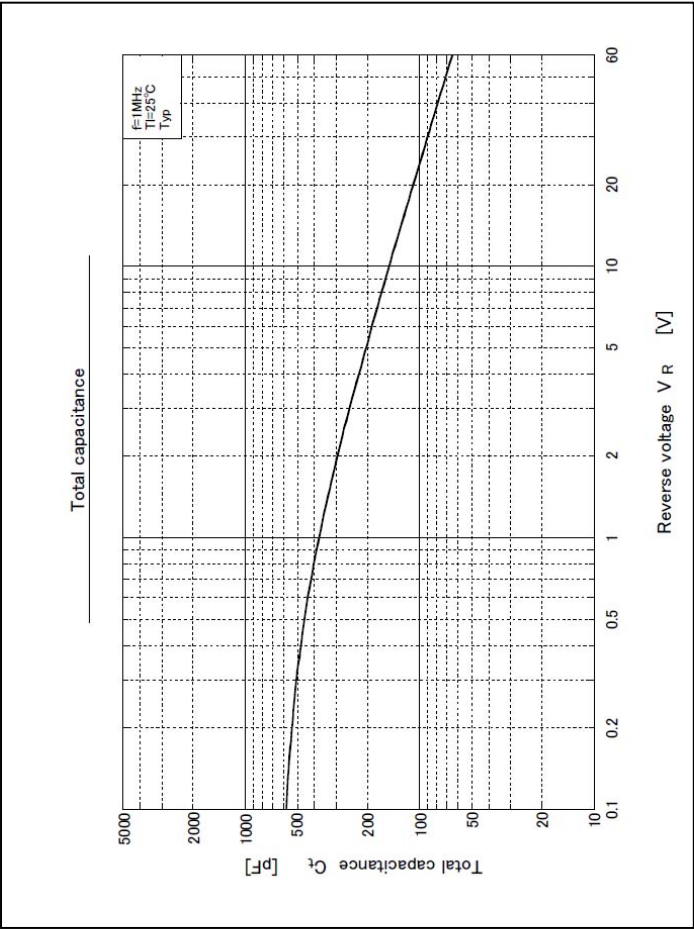
Substrate detail

Item	
Substrate	Glass-epoxy
Substrate thickness	1mm
Conductor thickness	35 μm
Pattern area	400mm ²



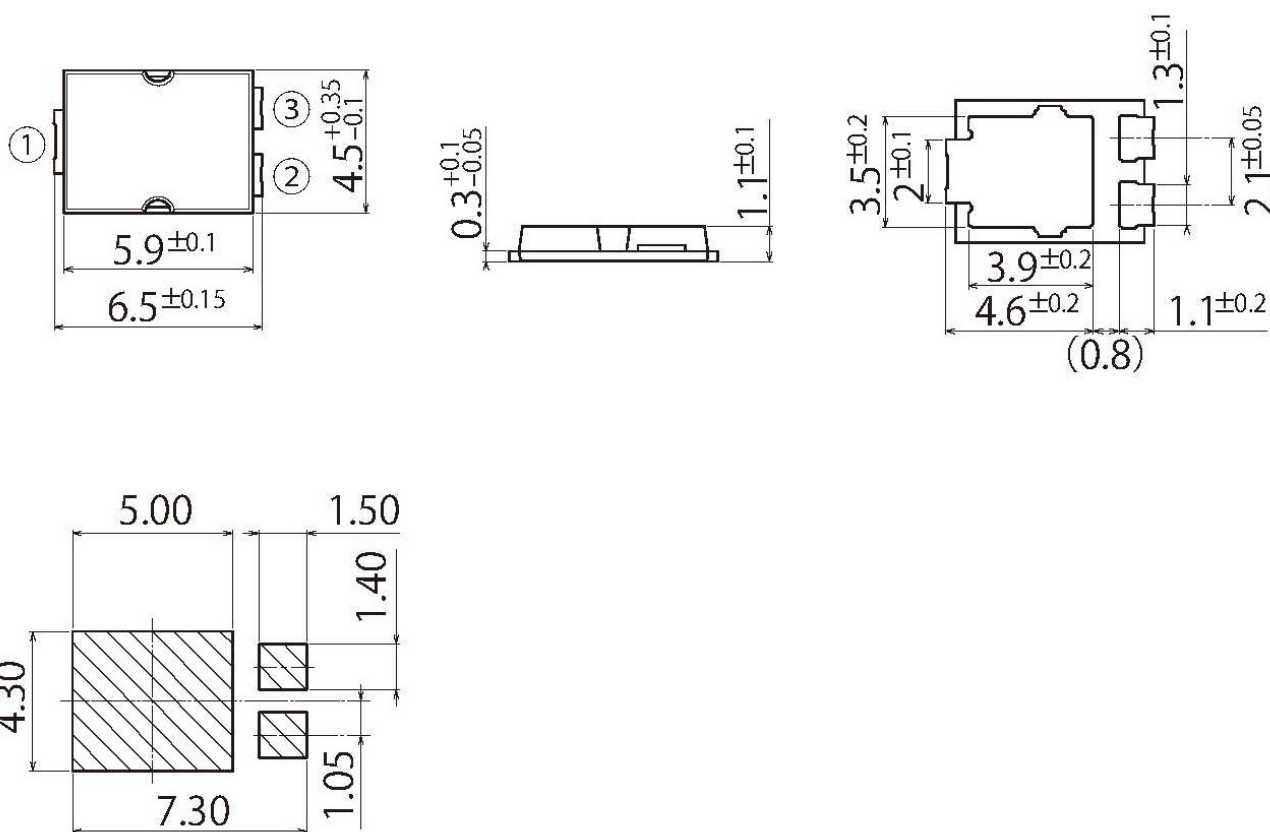
Surge forward current capability





G4

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



Referential Soldering Pad

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