

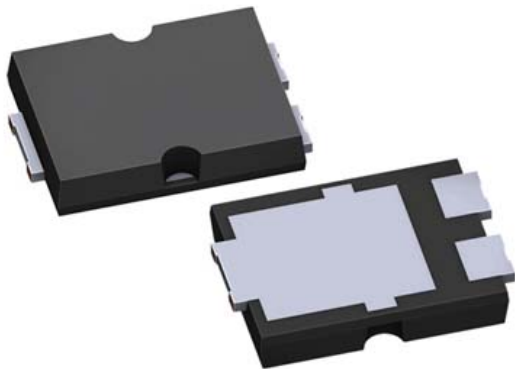
D15FY6ST
Schottky Barrier Diodes
60V, 15A

Feature

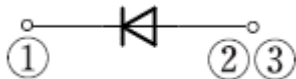
- Permit high current with a small package
- Tj=175°C
- Ultra low I_R
- Based on AEC-Q101
- Halogen free
- Pb free terminal
- RoHS:Yes

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}		60	V
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, With heatsink ,Tl=143°C ※	15	A
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On alumina substrate, Ta=25°C ※	4.3	A
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25°C ※	4	A
Surge forward current	I _{FSM}	50Hz sine wave, Non-repetitive, 1 cycle, Peak value, Tj=25°C	250	A

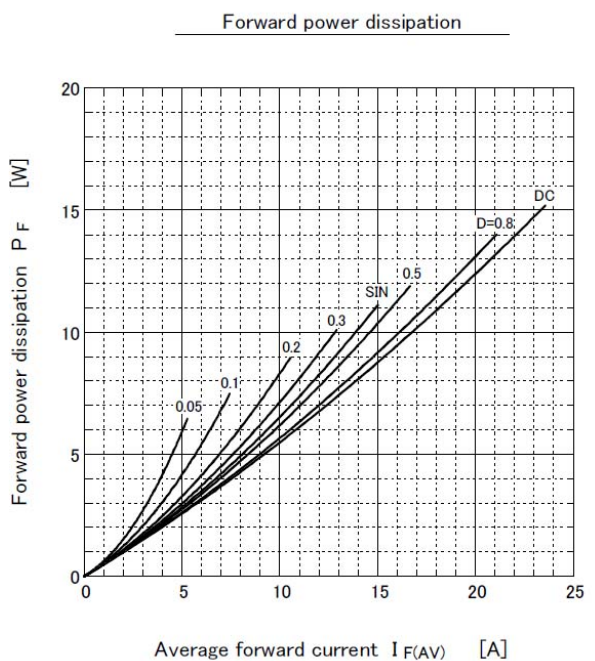
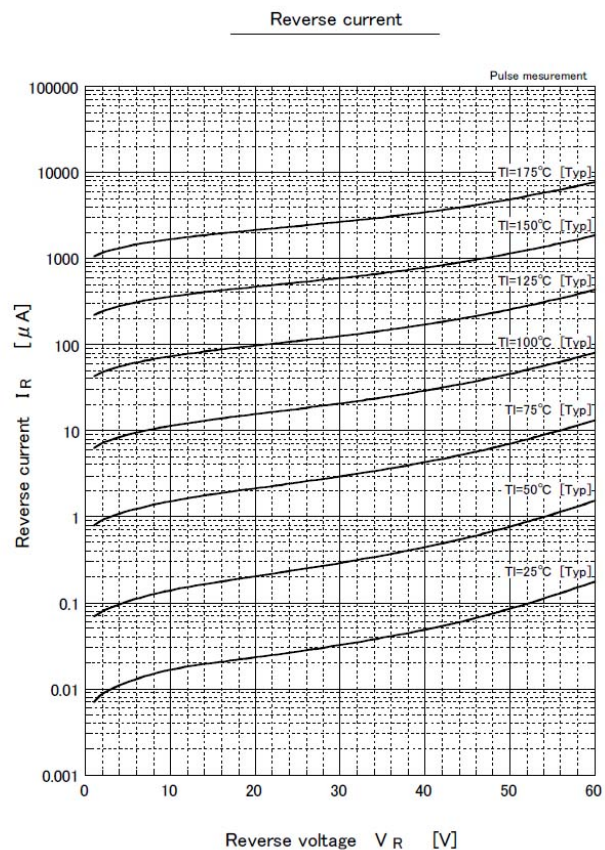
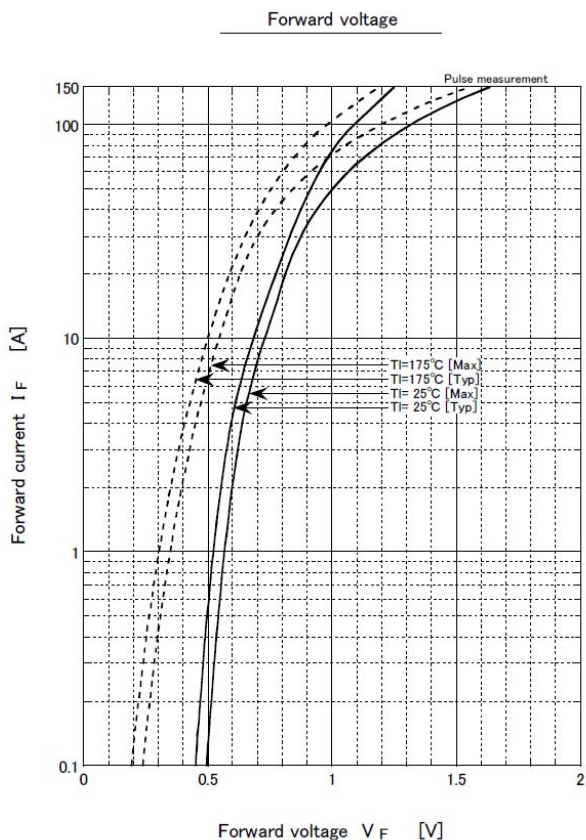
※ : See the original Specifications

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

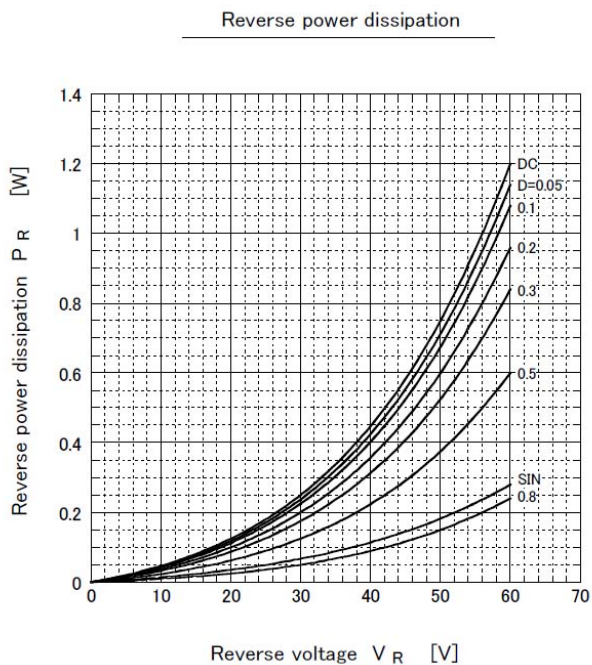
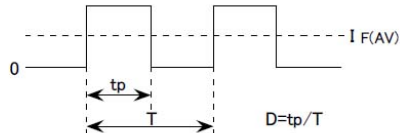
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	$I_F=15A$, Pulse measurement			0.78	V
Reverse current	I_R	$V_R=60V$, Pulse measurement			0.04	mA
Total capacitance	C_t	$f=1MHz$, $V_R=10V$		345		pF
Thermal resistance	$R_{th(j-l)}$	Junction to lead, With heatsink ※			2.8	°C/W
Thermal 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

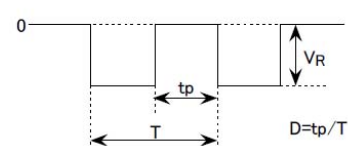
CHARACTERISTIC DIAGRAMS



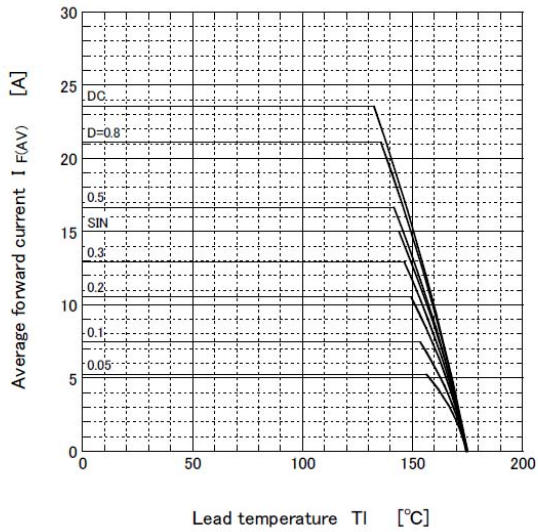
● $T_j = 175^\circ\text{C}$



● $T_j = 175^\circ\text{C}$



Derating curve

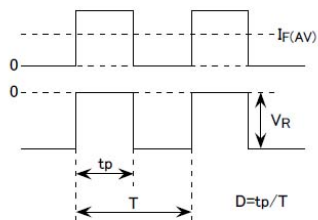


● $V_R = 30V$

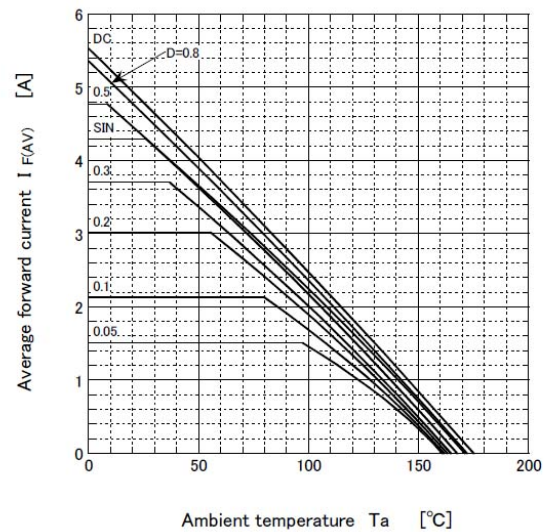
R-load
With heatsink

● Substrate detail

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



Derating curve

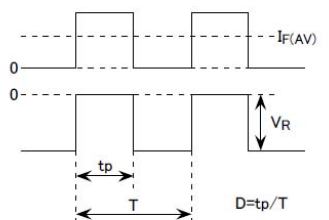


● $V_R = 30V$

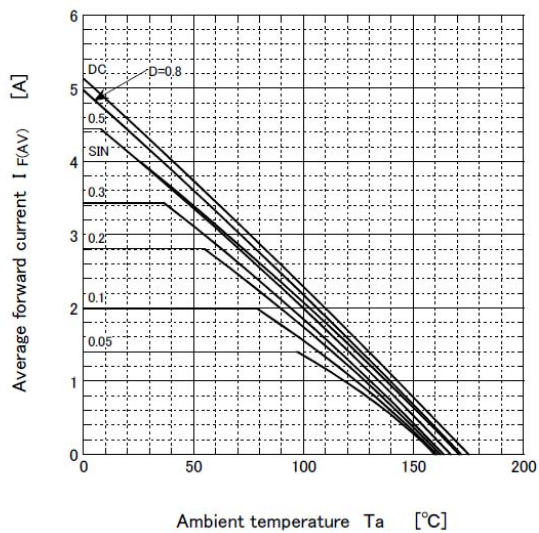
R-load
Free in air

● Substrate detail

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



Derating curve

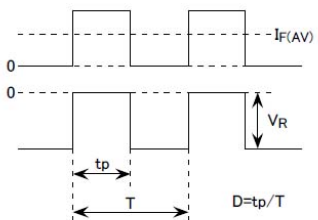


● $V_R = 30V$

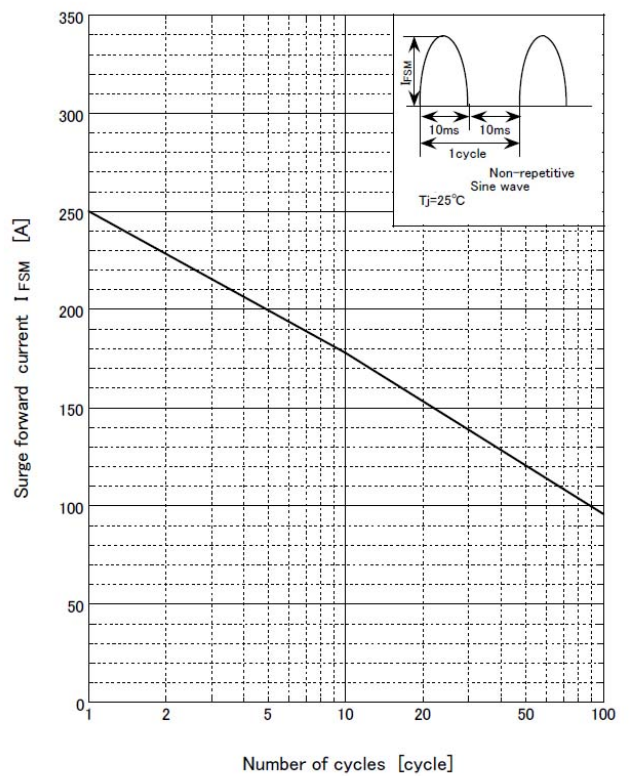
R-load
Free in air

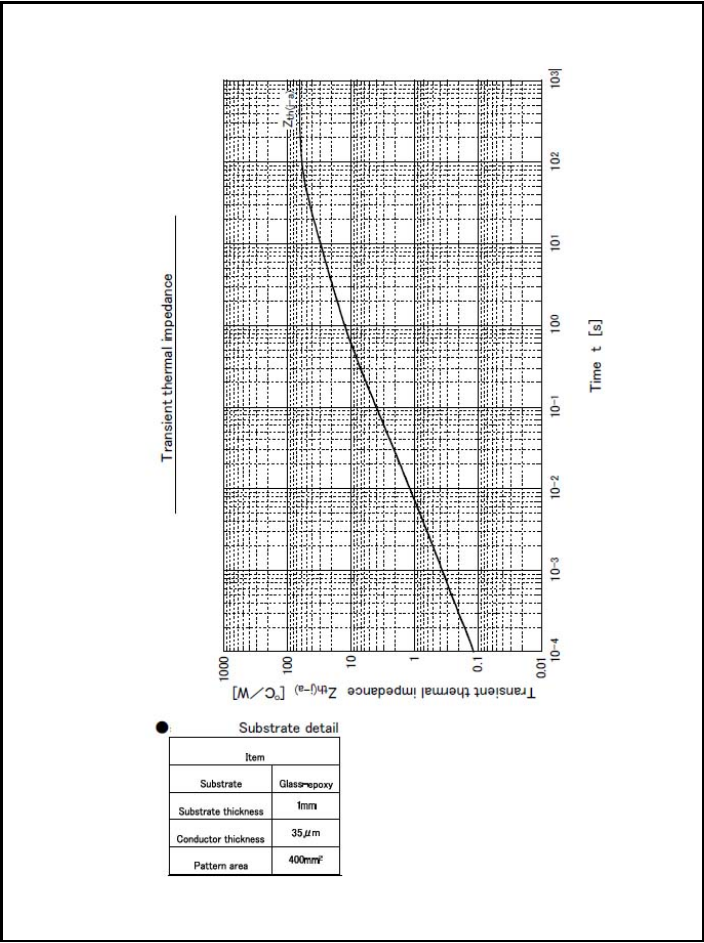
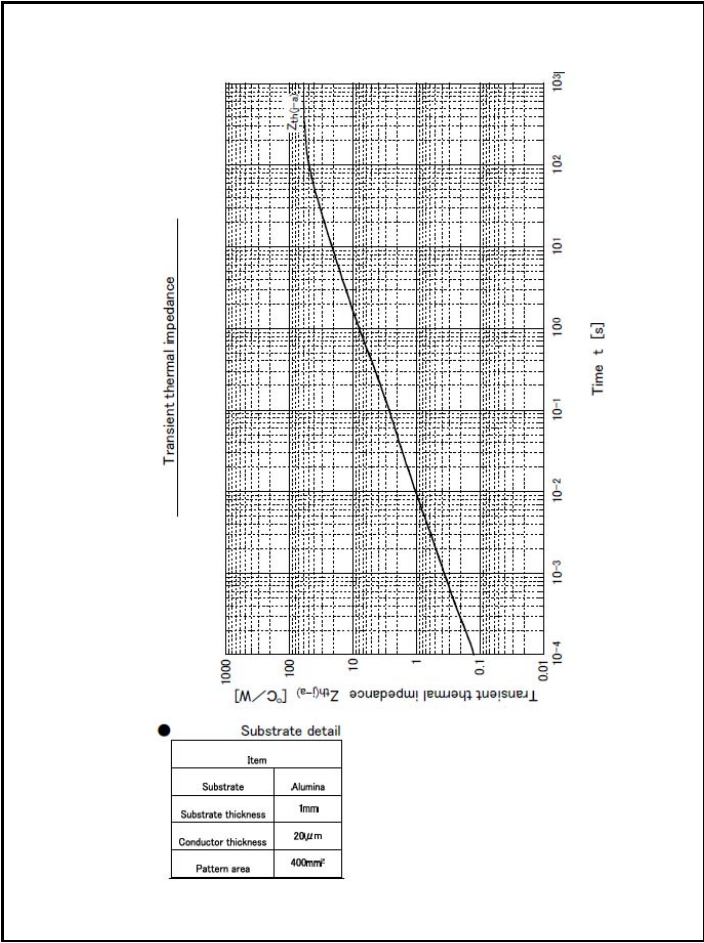
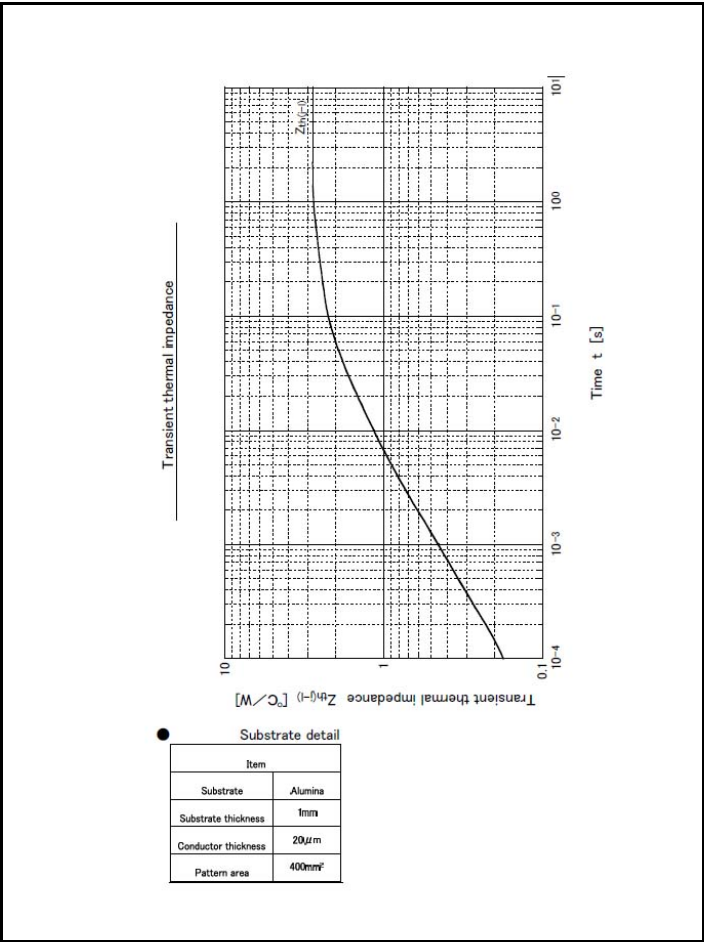
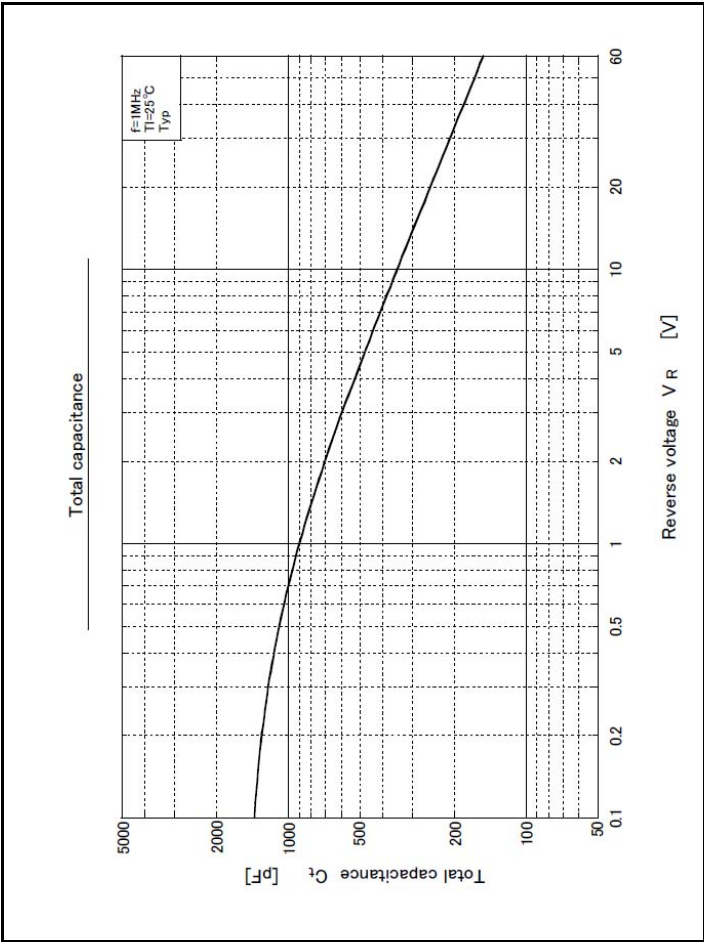
● Substrate detail

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



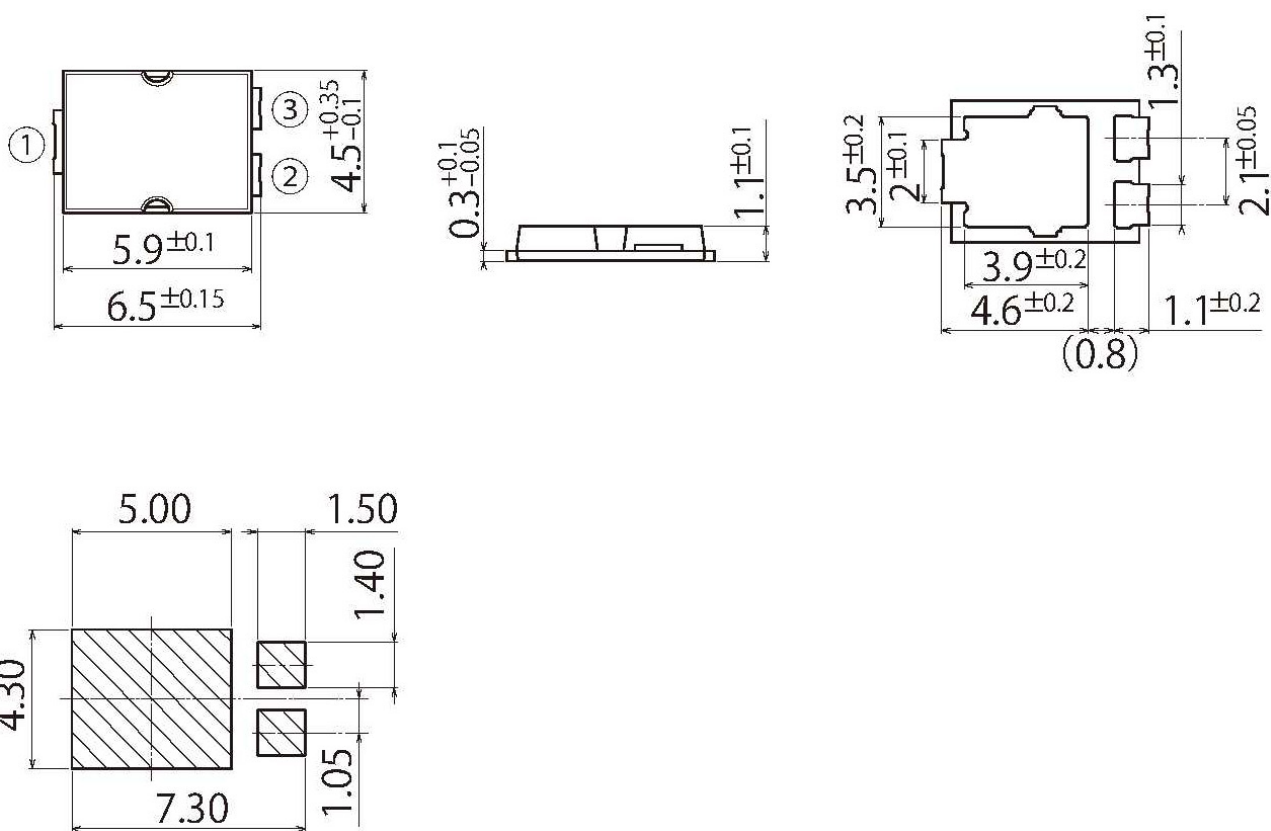
Surge forward current capability





G4

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



Referential Soldering Pad

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