

D3FE60
General Rectifying Diodes
600V, 3.0A

Feature

- Small SMD
- High ESD Capability
- Based on AEC-Q101
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): 2F



Equivalent circuit



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

Item	Symbol	Conditions	Ratings	Unit
Storage temperrature	T_{stg}		-55 to 150	°C
Junction temperature	T_j		-55 to 150	°C
Repetitive peak reverse voltage	V_{RRM}		600	V
Average forward current	$I_{F(AV)}$	50Hz sine wave, Resistance load, Tl=105°C	3	A
Average forward current	$I_{F(AV)}$	50Hz sine wave, Resistance load, On alumina substrate, Ta=25°C ※	1.8	A
Average forward current	$I_{F(AV)}$	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25°C ※	1.28	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25°C	150	A
Surge forward current	I_{FSM1}	tp=1ms, sine wave, Non-repetitive, peak value, Tj=25°C	400	A

※ :See the original Specifications

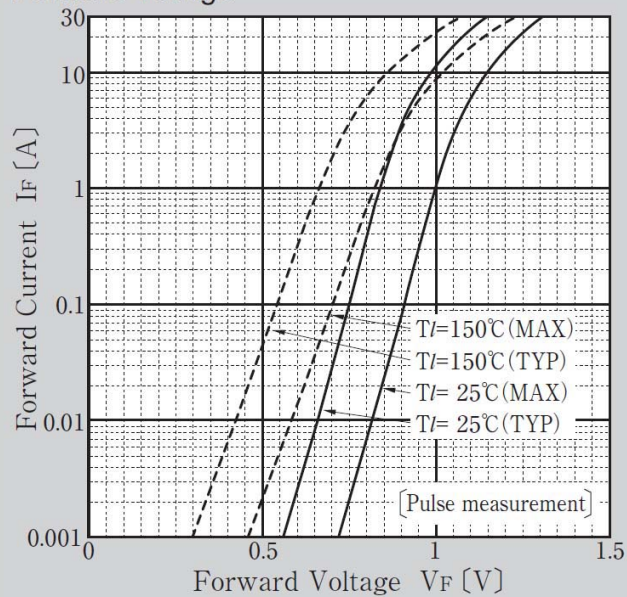
Electrical Characteristics (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=3A, Pulse measurement			1.05	V
Reverse current	I_R	VR=600V, Pulse measurement			10	μA
Electro static discharge Capability	V_{ESD}	C=330pF, R=330Ω, Polarity±, Aerial discharge		25		kV
Thermal resistance	$R_{th(j-l)}$	Junction to lead			16	°C/W
Thermal resistance	$R_{th(j-a)}$	Junction to ambient, On alumina substrate ※			80	°C/W
Thermal resistance	$R_{th(j-a)}$	Junction to ambient, On glass-epoxy substrate ※			115	°C/W

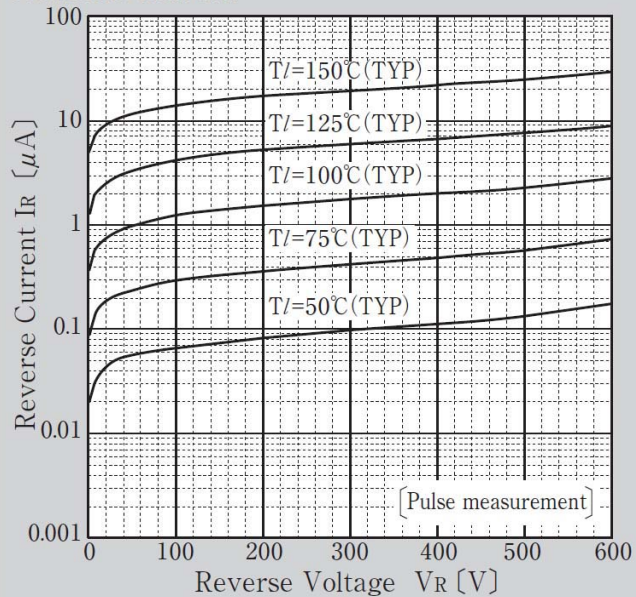
※ : See the original Specifications

CHARACTERISTIC DIAGRAMS

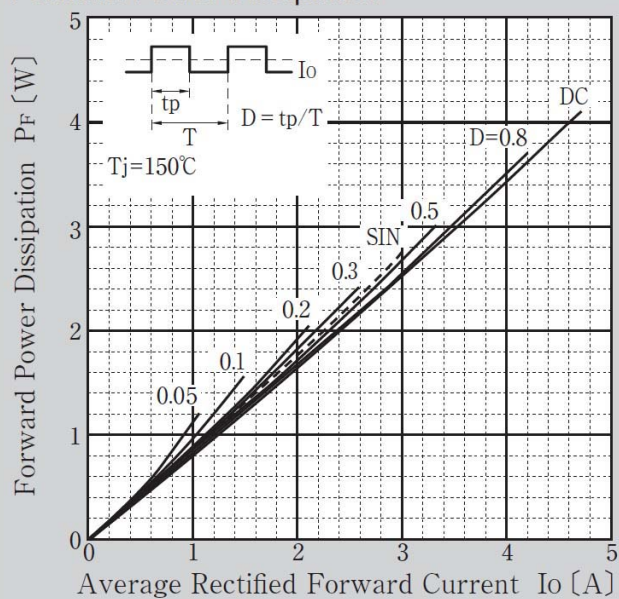
Forward Voltage



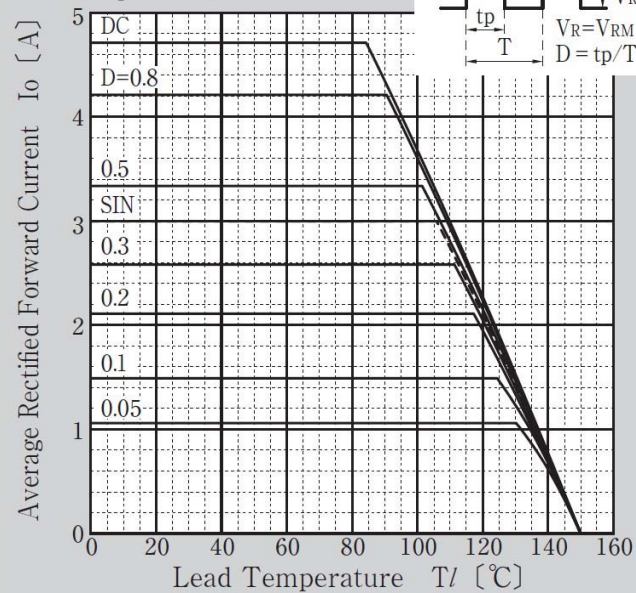
Reverse Current

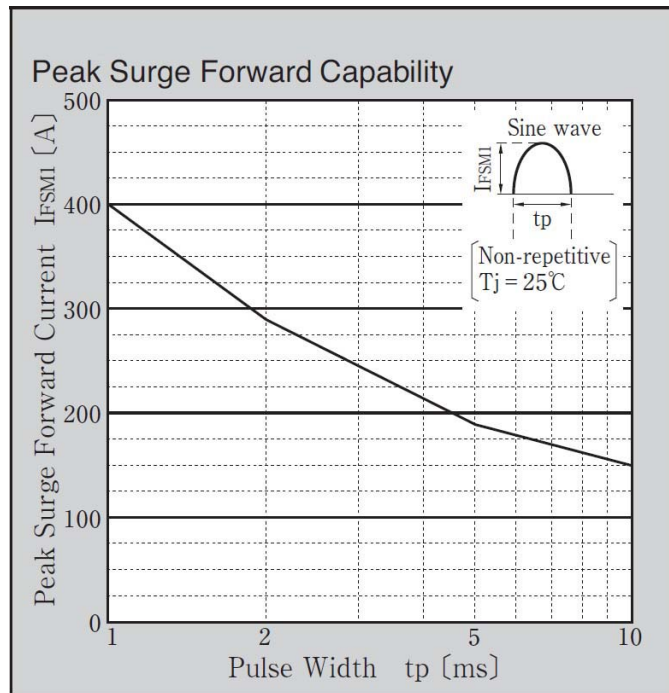
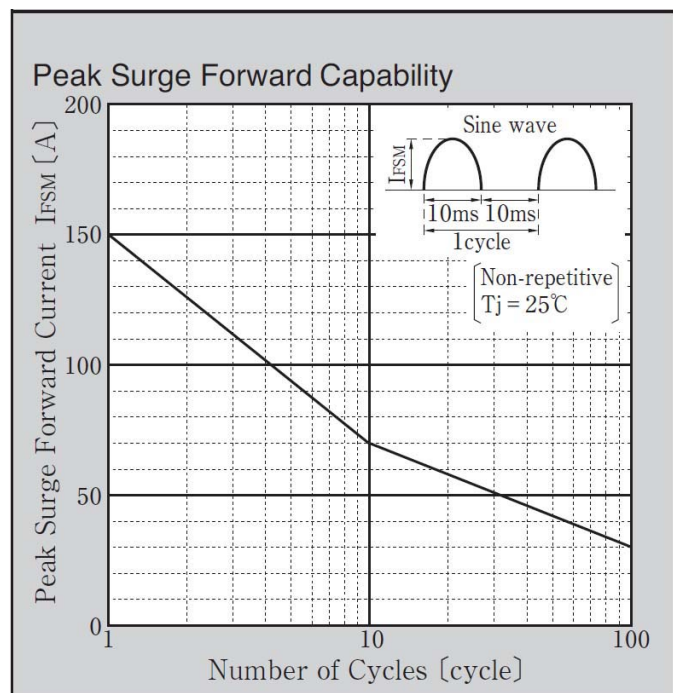
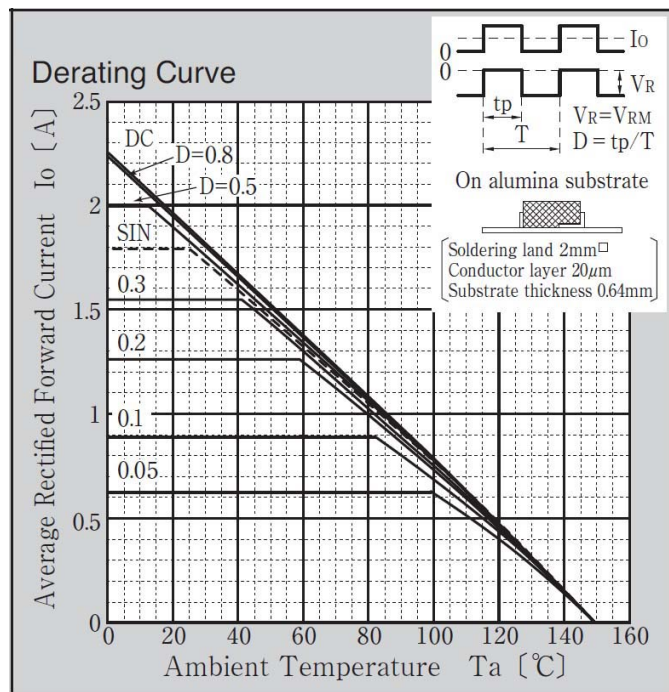
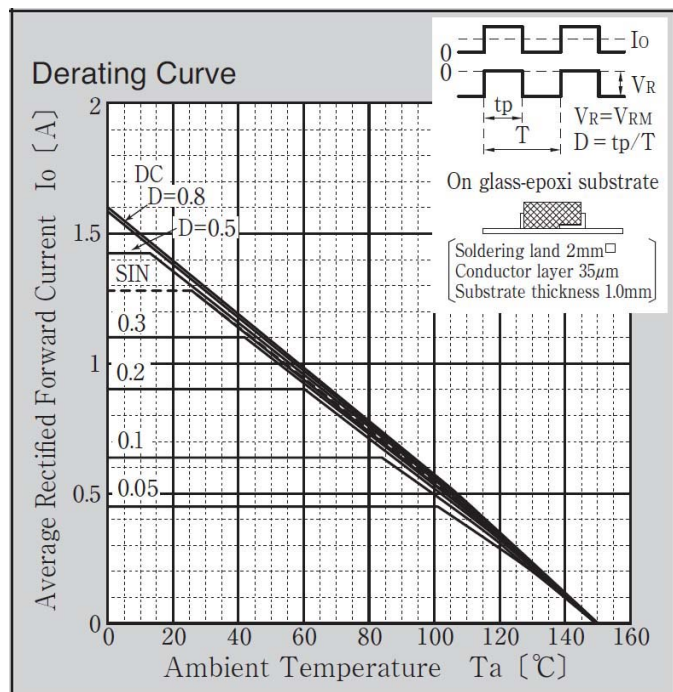


Forward Power Dissipation

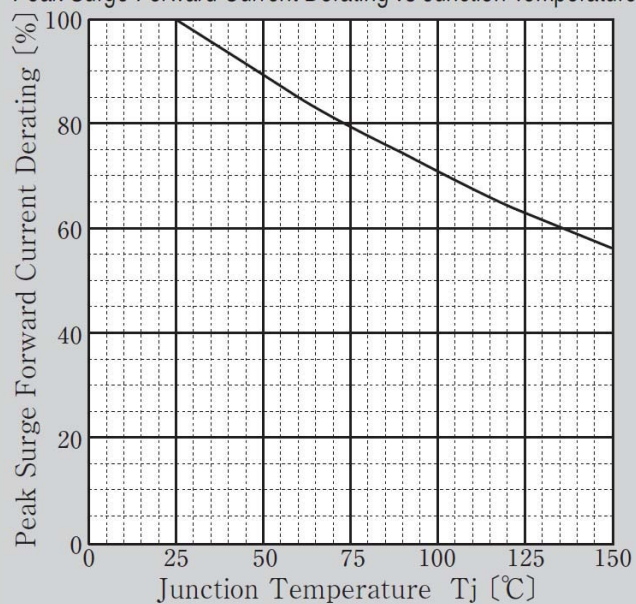


Derating Curve

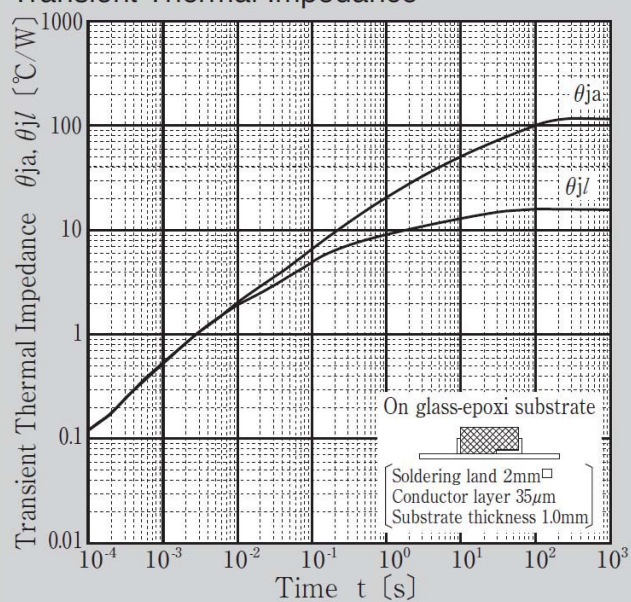




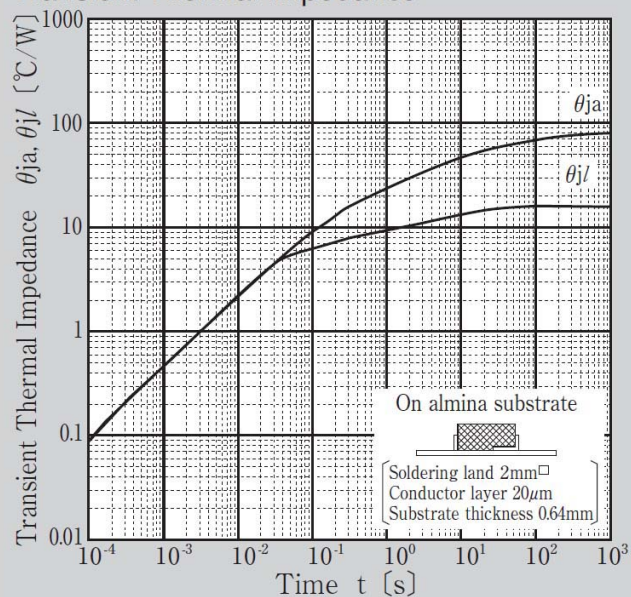
Peak Surge Forward Current Derating vs Junction Temperature



Transient Thermal Impedance

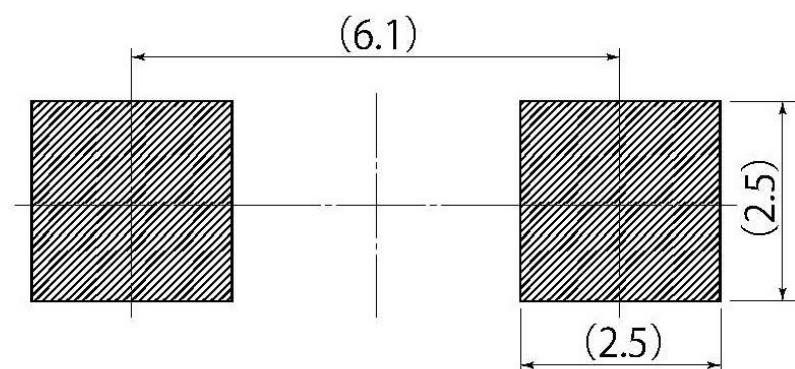
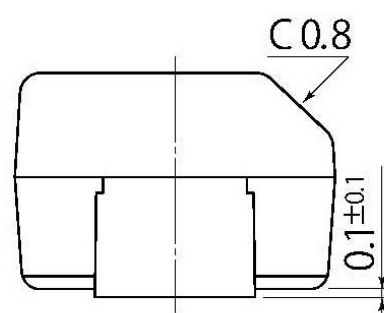
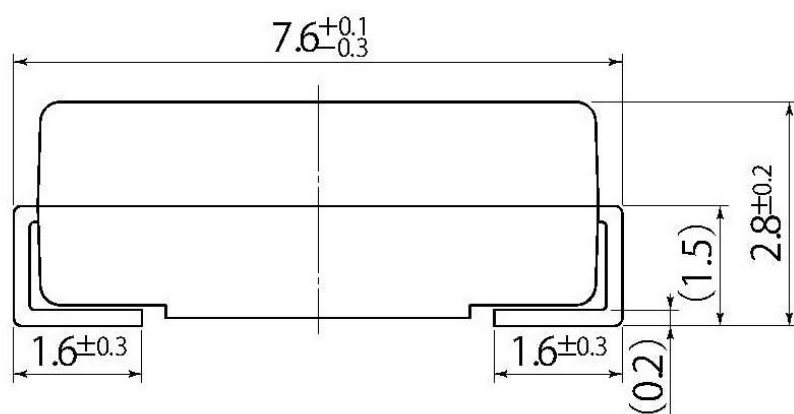
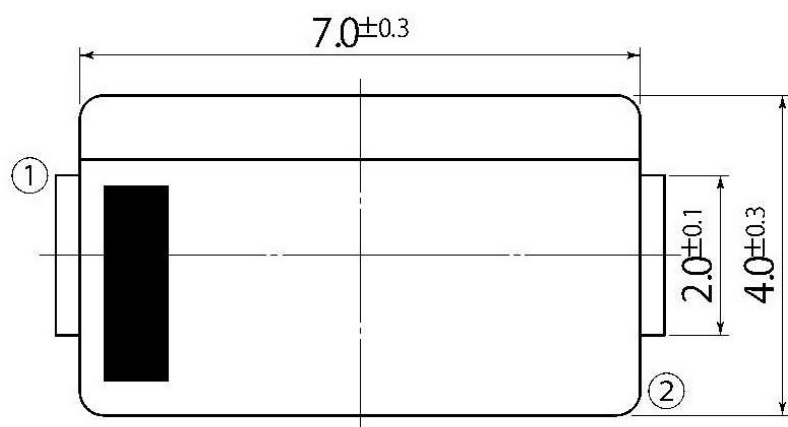


Transient Thermal Impedance



B9

JEDEC Code	—
JEITA Code	—
House Name	2F



Referential Soldering Pad

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

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