

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	Tstg		-55 to 150	°C
Junction temperature	Tj		-55 to 150	°C
Repetitive peak reverse voltage	VRRM		600	V
Average forward current	IF(AV)	50Hz sine wave, Resistance load, Tl=105°C	3	A
Average forward current	IF(AV)	50Hz sine wave, Resistance load, On alumina substrate, Ta=25°C ※	1.8	A
Average forward current	IF(AV)	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25°C ※	1.28	A
Surge forward current	IFSM	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25°C	150	A
Surge forward current	IFSM1	tp=1ms, sine wave, Non-repetitive, peak value, Tj=25°C	400	A

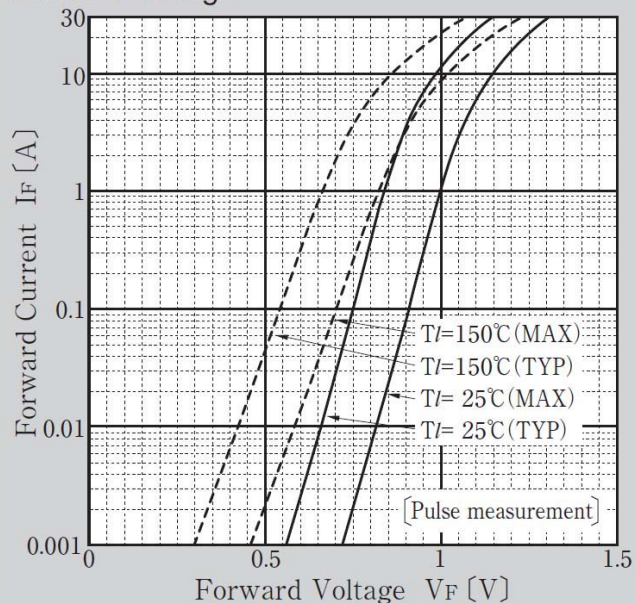
※ :See the original Specifications

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

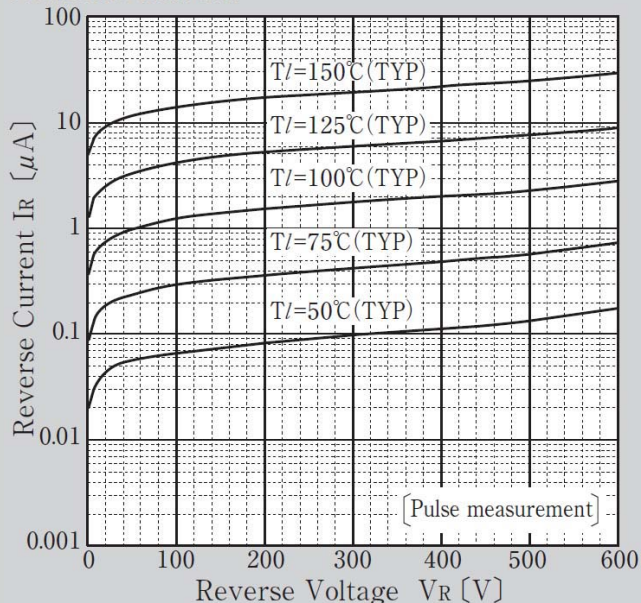
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	$I_F=3A$, Pulse measurement			1.05	V
Reverse current	I_R	$V_R=600V$, Pulse measurement			10	μA
Electro static discharge Capability	V_{ESD}	$C=330pF$, $R=330\Omega$, Polarity $\pm$, Aerial discharge		25		kV
Thermal resistance	$R_{th(j-l)}$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

※ :See the original Specifications

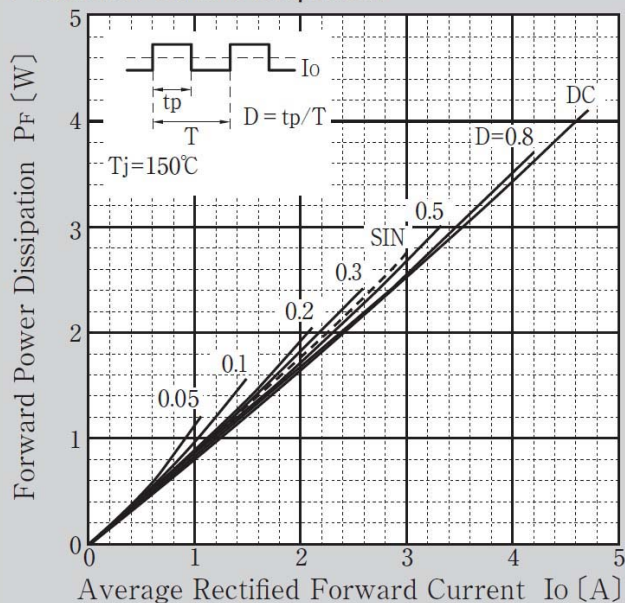
Forward Voltage



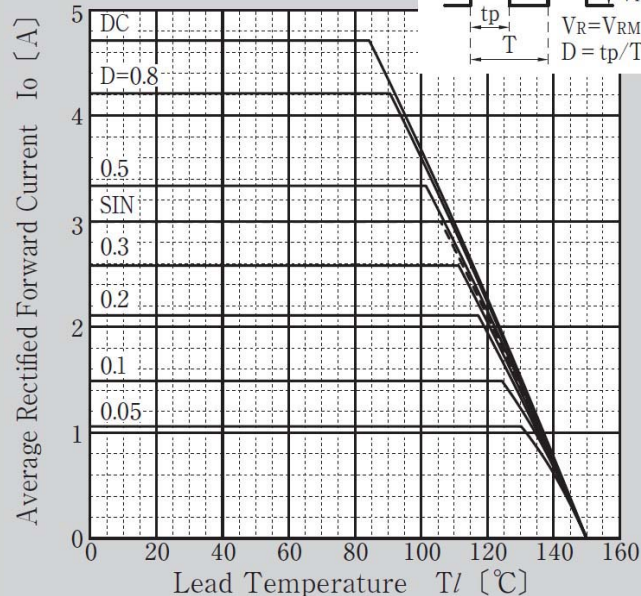
Reverse Current

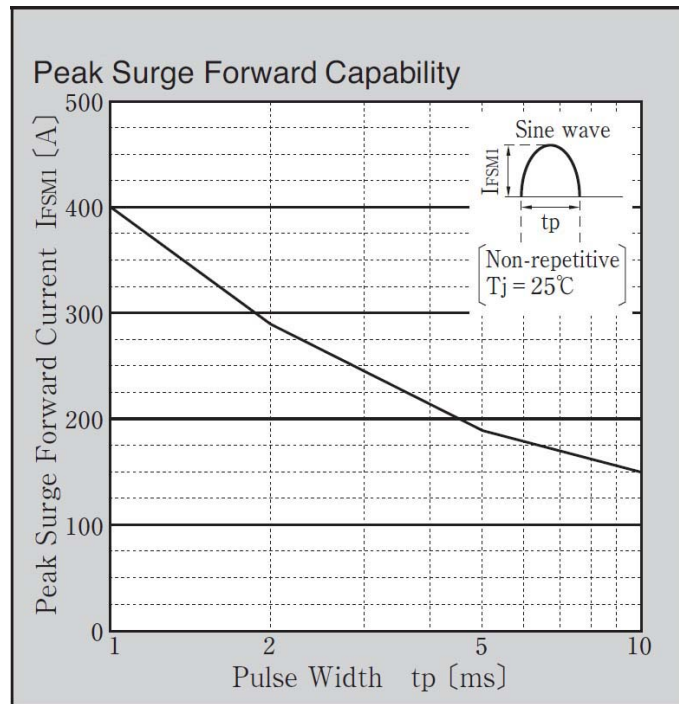
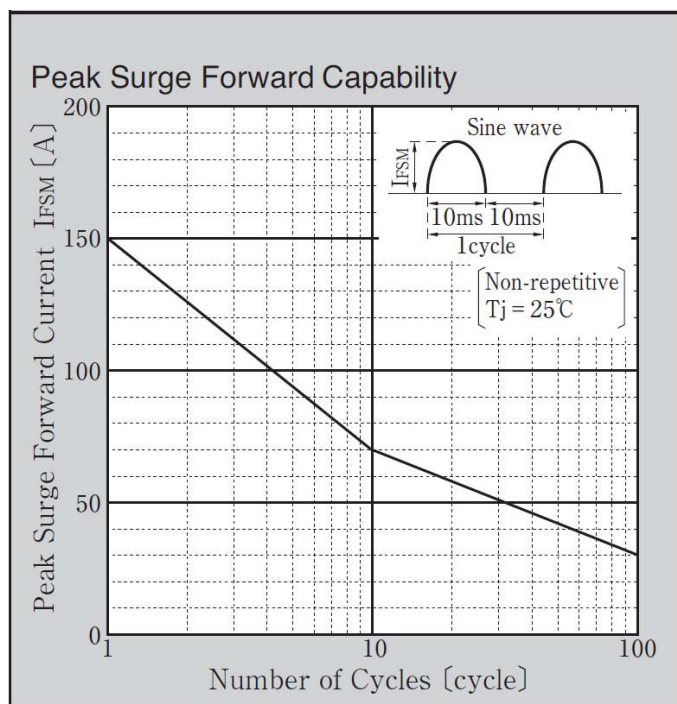
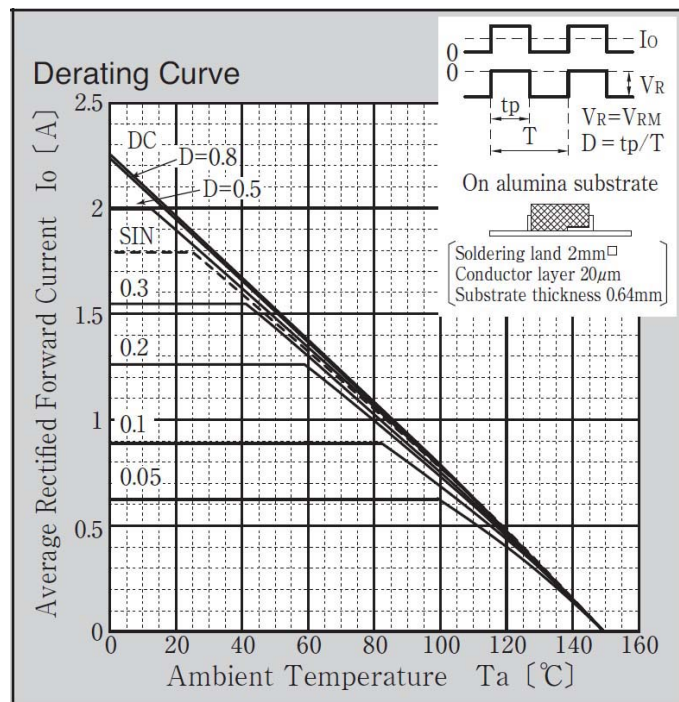
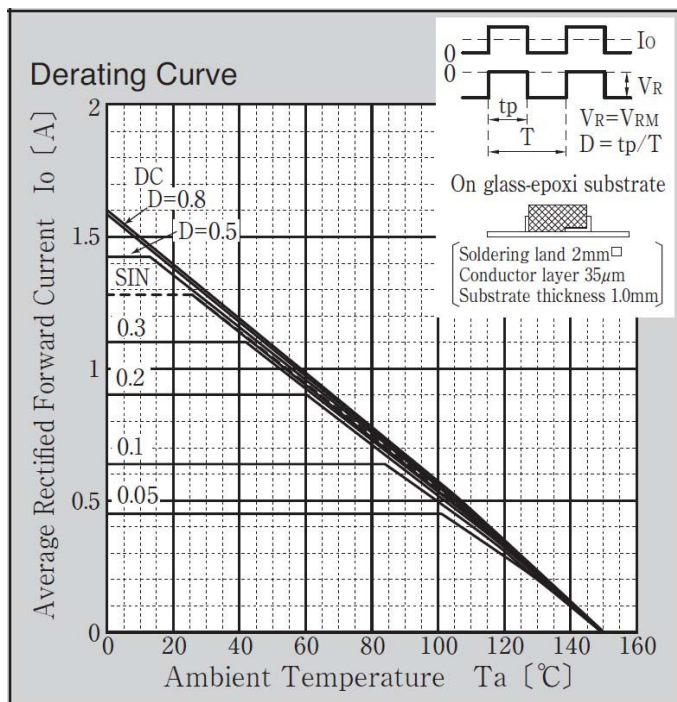


Forward Power Dissipation

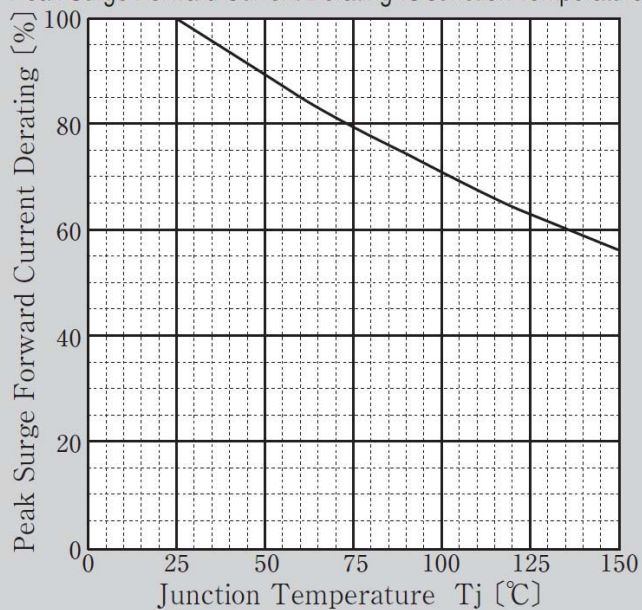


Derating Curve

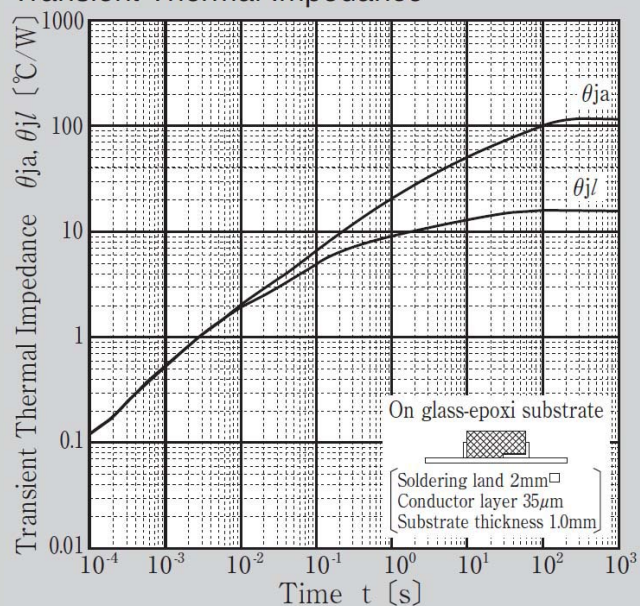




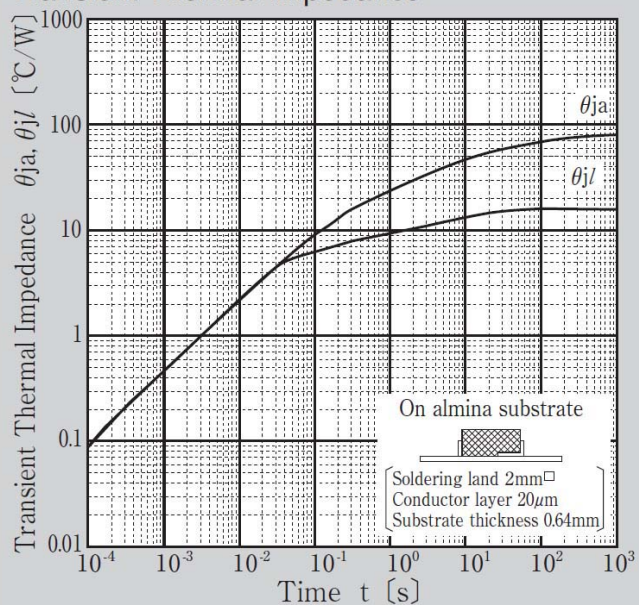
Peak Surge Forward Current Derating vs Junction Temperature



Transient Thermal Impedance

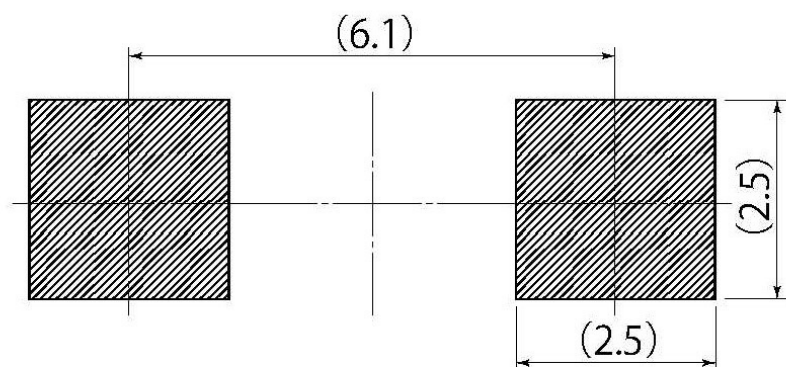
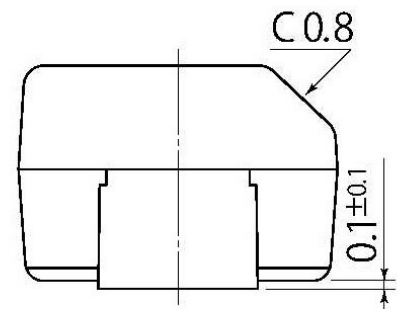
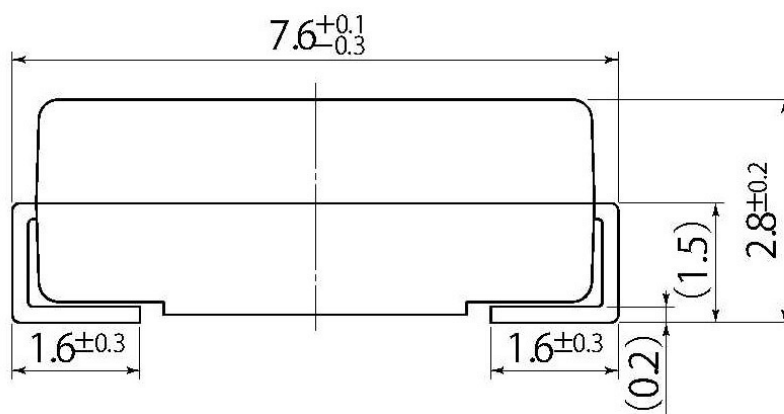
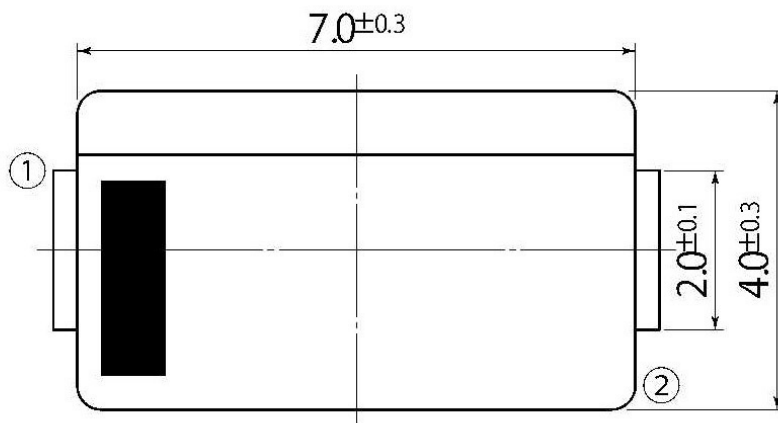


Transient Thermal Impedance



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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