

# 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 temperature	T <sub>stg</sub>		-55 to 150	°C
Junction temperature	T <sub>j</sub>		-55 to 150	°C
Repetitive peak reverse voltage	V <sub>RRM</sub>		600	V
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, Tl=105°C	3	A
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, On alumina substrate, Ta=25°C ※	1.8	A
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25°C ※	1.28	A
Surge forward current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25°C	150	A
Surge forward current	I <sub>FSM1</sub>	tp=1ms, sine wave, Non-repetitive, peak value, Tj=25°C	400	A

※ : See the original Specifications

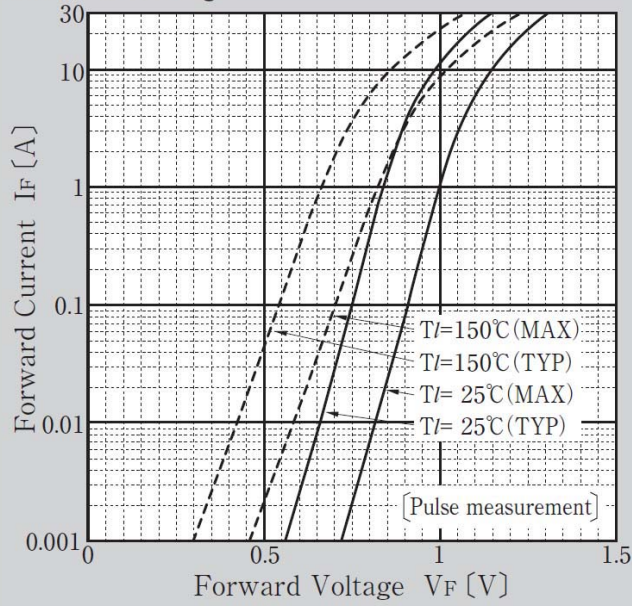
**Electrical Characteristics** (unless otherwise specified : Tl=25°C)

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	$\mu A$
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	$^{\circ}C/W$

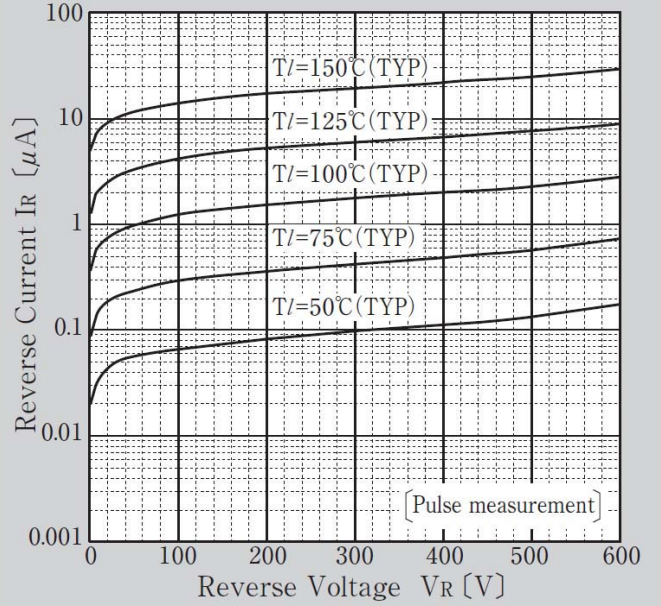
※ :See the original Specifications

# CHARACTERISTIC DIAGRAMS

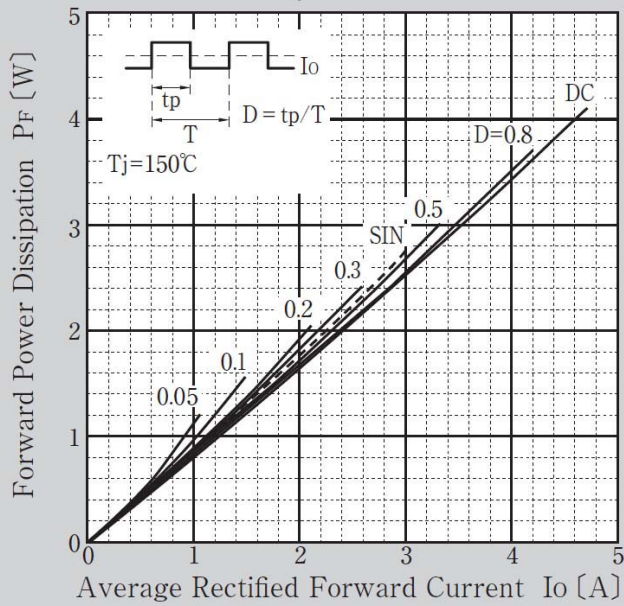
### Forward Voltage



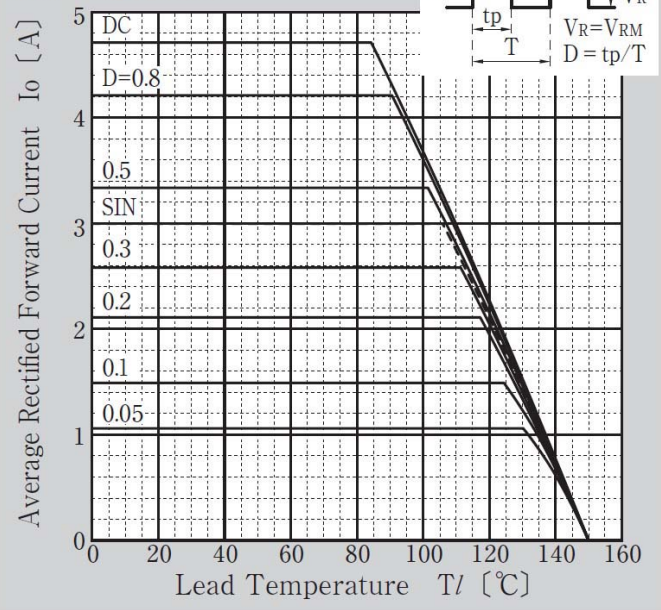
### Reverse Current

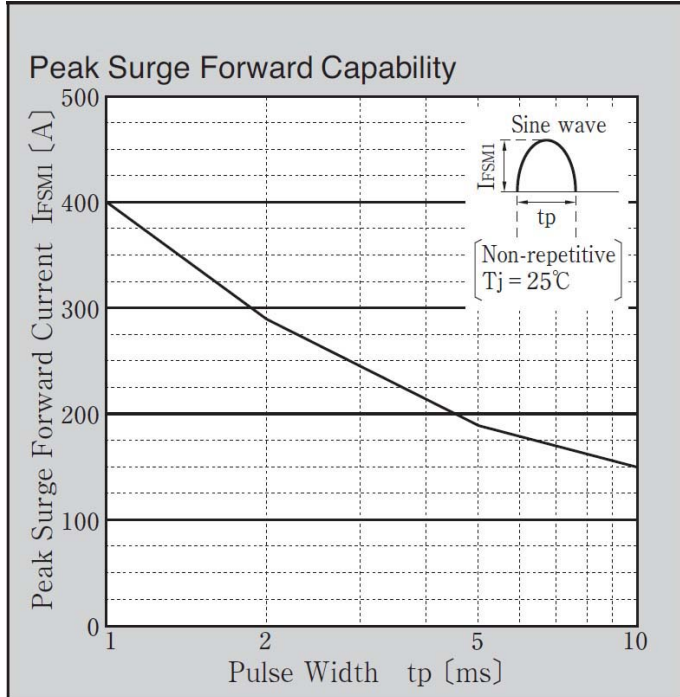
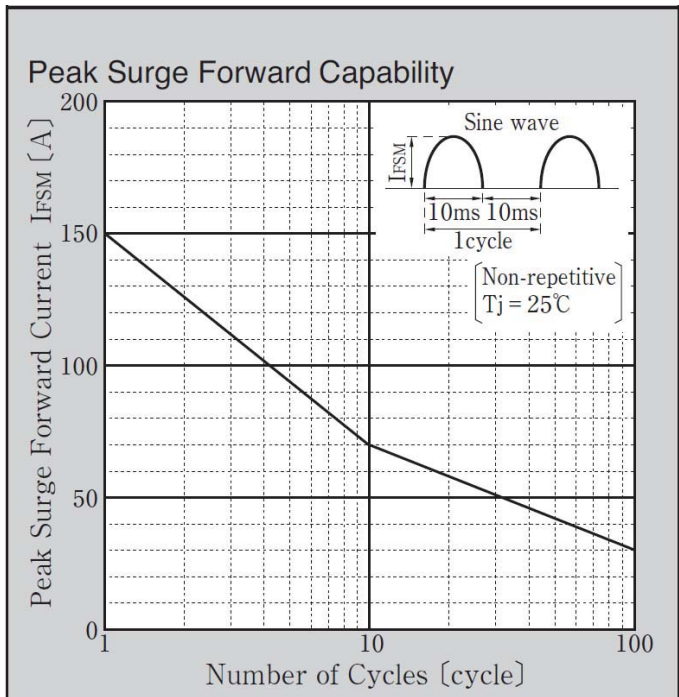
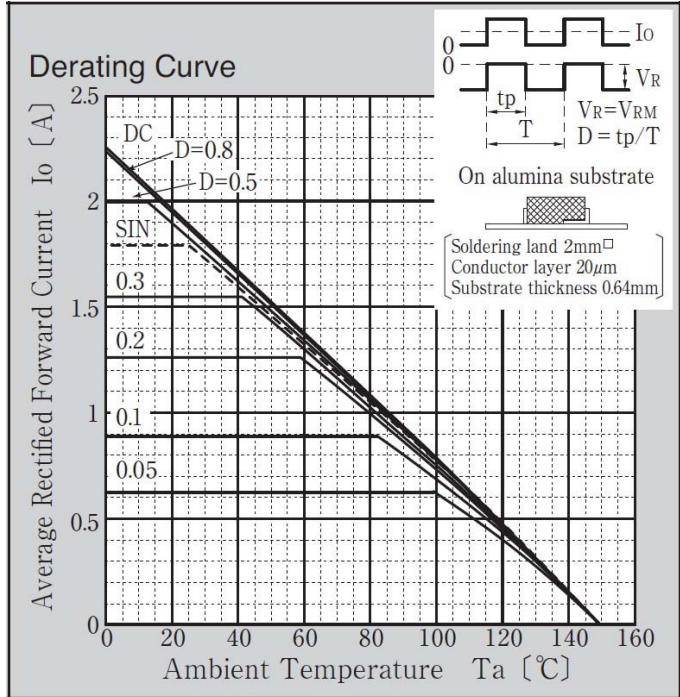
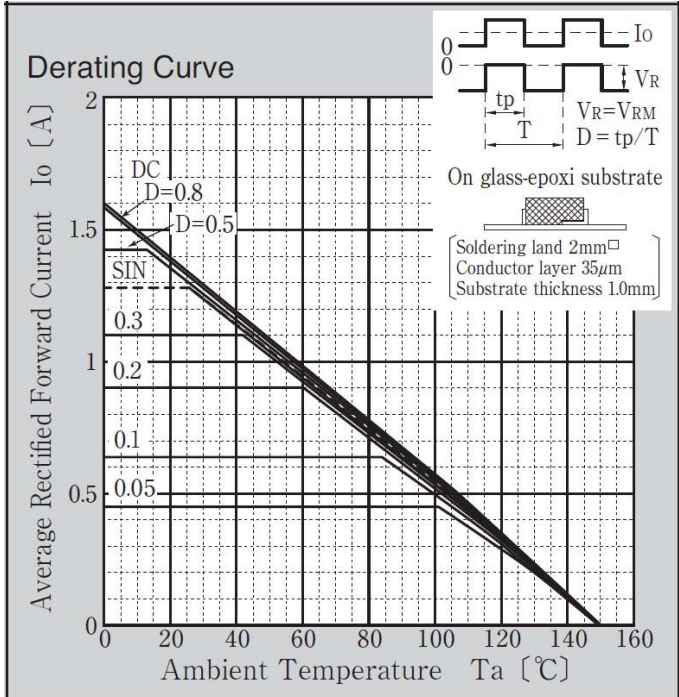


### Forward Power Dissipation

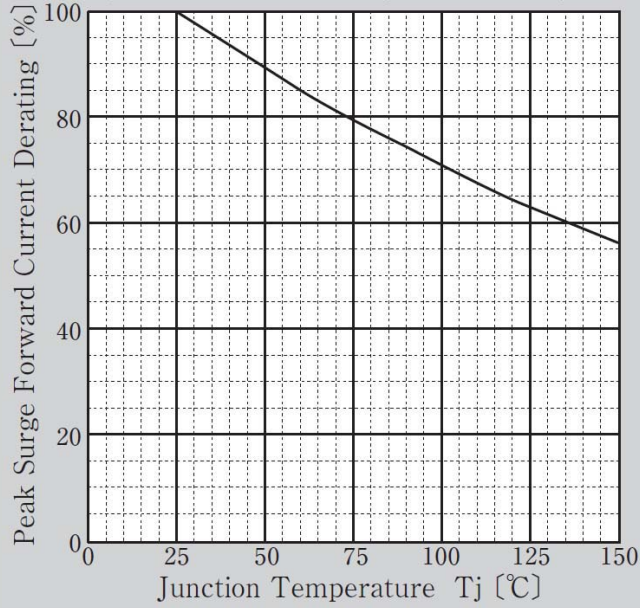


### Derating Curve

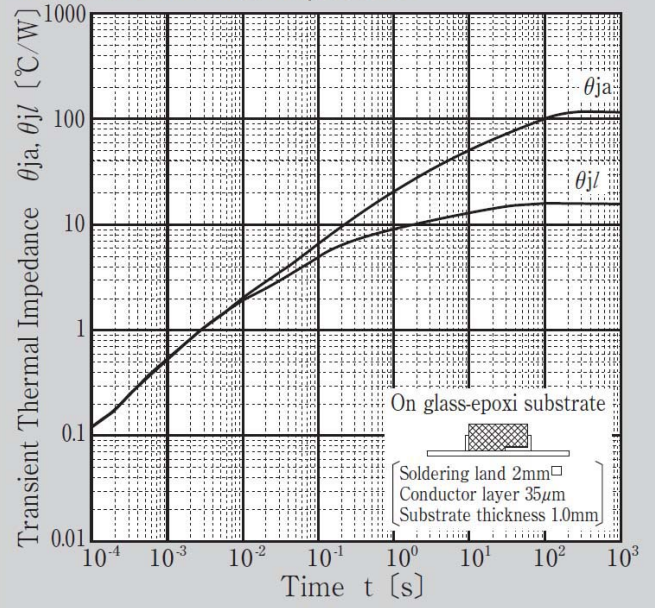




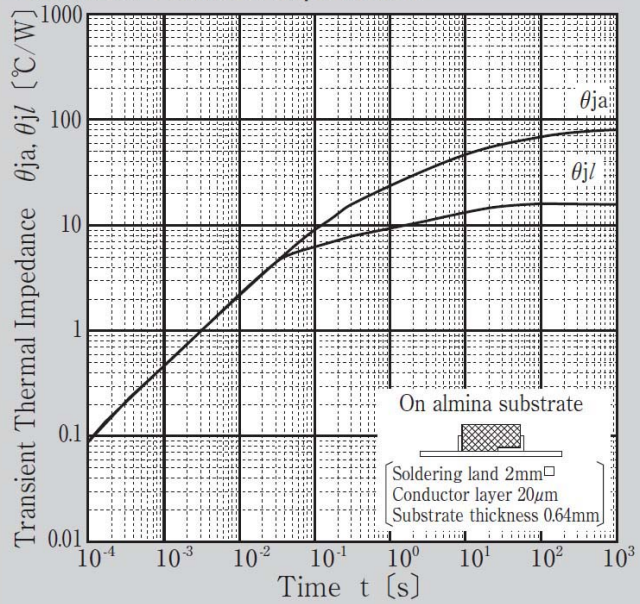
Peak Surge Forward Current Derating vs Junction Temperature



Transient Thermal Impedance

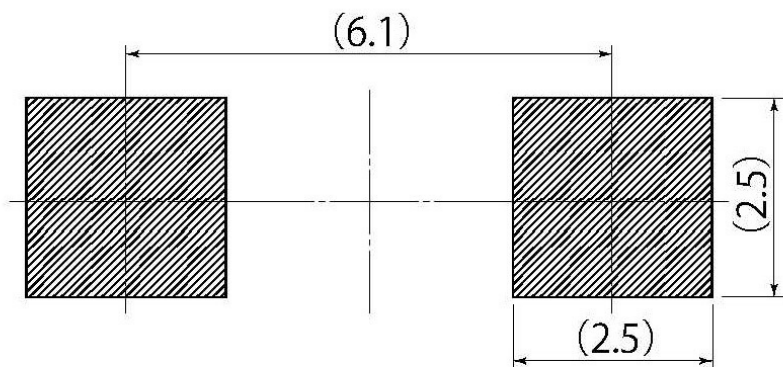
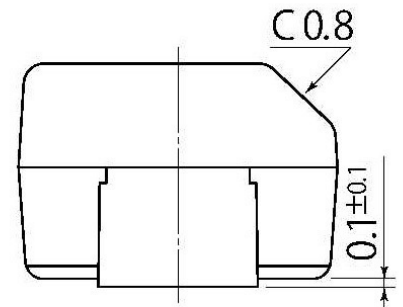
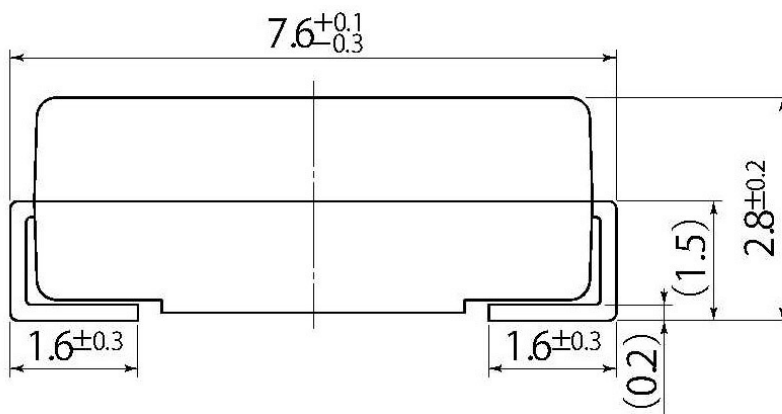
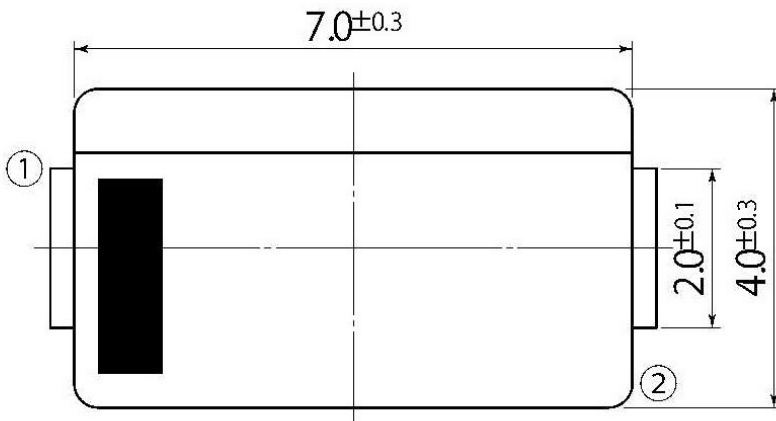


Transient Thermal Impedance



B9

JEDEC Code	—
JEITA Code	—
House Name	2F



Referential Soldering Pad

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