

## D3D7\_FD6626B



**DO-35**

COLOR BAND DENOTES CATHODE

### Small Signal Diode

#### Absolute Maximum Ratings \* $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
$V_{RRM}$	Maximum Repetitive Reverse Voltage	75	V
$I_{F(AV)}$	Average Rectified Forward Current	200	mA
$I_{FSM}$	Non-repetitive Peak Forward Surge Current		
	Pulse Width = 1.0 second	1.0	A
	Pulse Width = 1.0 microsecond	4.0	A
$T_{STG}$	Storage Temperature Range	-65 to +200	$^\circ\text{C}$
$T_J$	Operating Junction Temperature	175	$^\circ\text{C}$

\* These ratings are limiting values above which the serviceability of the diode may be impaired.

#### NOTES:

- 1) These ratings are based on a maximum junction temperature of 200 degrees C.
- 2) These are steady limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

### Thermal Characteristics

Symbol	Parameter	Min.	Max.	Units
$P_D$	Power Dissipation		500	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient		300	$^\circ\text{C/W}$

### Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Conditions	Min.	Max.	Units
$V_R$	Breakdown Voltage	$I_R = 5.0\mu\text{A}$	75		V
$V_F$	Forward Voltage	$I_F = 1\text{mA}$	550		mV
		$I_F = 100\text{mA}$		1.1	V
$I_R$	Reverse Leakage	$V_R = 50\text{V}$		50	nA
		$V_R = 75\text{V}$		5.0	$\mu\text{A}$
$C_T$	Total Capacitance	$V_R = 0, f = 1.0\text{MHz}$		2.5	pF
$Q_S$	Storage Charge	$I_F = 10\text{mA}, V_R = 6.0\text{V} (600\text{mA})$ $I_F = 10\text{mA}, R_L = 100\Omega$		50	pC

## Typical Characteristics

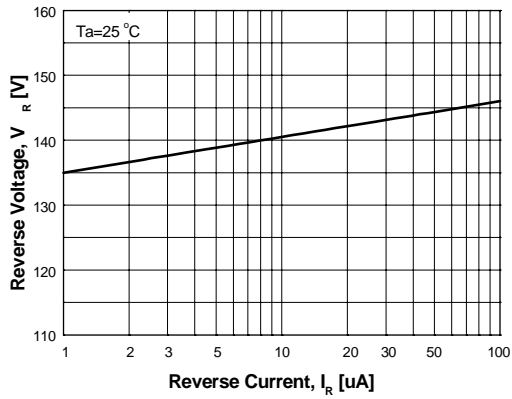


Figure 1. Reverse Voltage vs Reverse Current  
BV - 1.0 to 100 $\mu A$

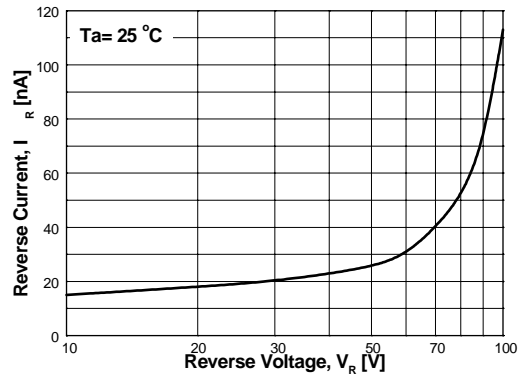


Figure 2. Reverse Current vs Reverse Voltage  
 $I_R$  - 10 to 100V

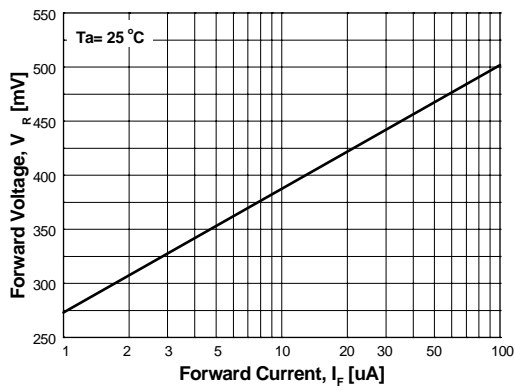


Figure 3. Forward Voltage vs Forward Current  
VF - 1 to 100 $\mu A$

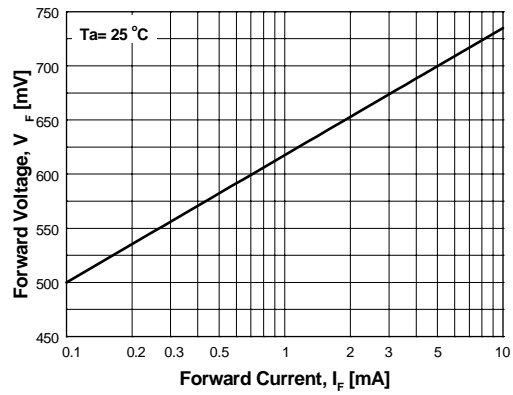


Figure 4. Forward Voltage vs Forward Current  
VF - 0.1 to 100mA

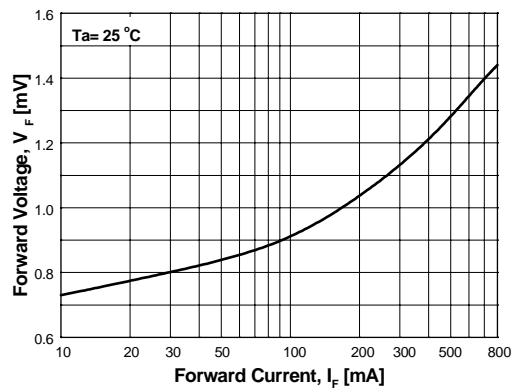


Figure 5. Forward Voltage vs Forward Current  
VF - 10 to 800mA

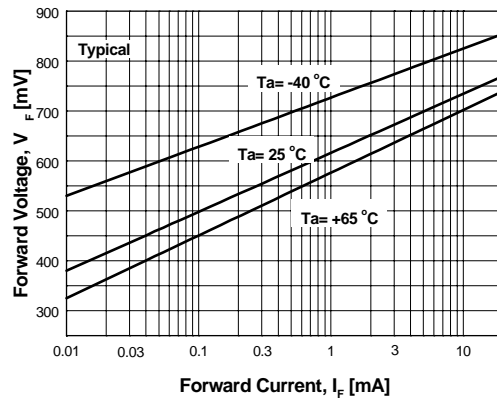


Figure 6. Forward Voltage vs Ambient Temperature  
VF - 0.01 - 20mA(-40 to +65 Deg C)

Typical Characteristics (Continued)

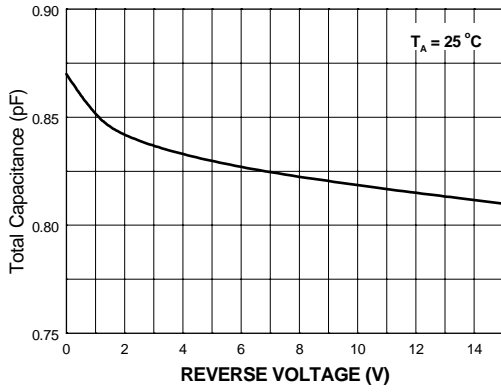


Figure 7. Total Capacitance

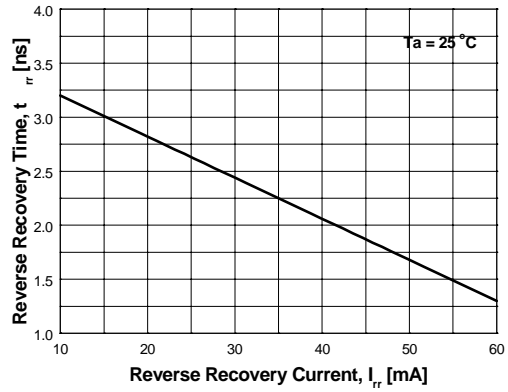


Figure 8. Reverse Recovery Time vs Reverse Recovery Current

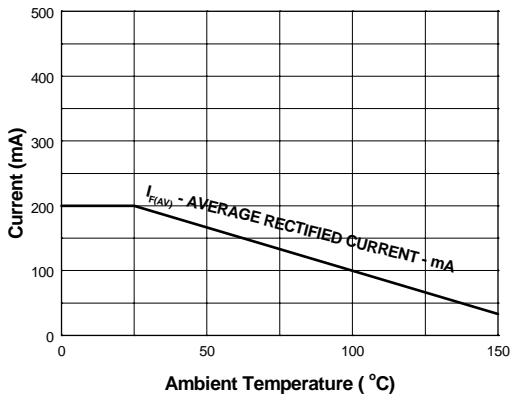


Figure 9. Average Rectified Current ( $I_{F(AV)}$ ) versus Ambient Temperature ( $T_A$ )

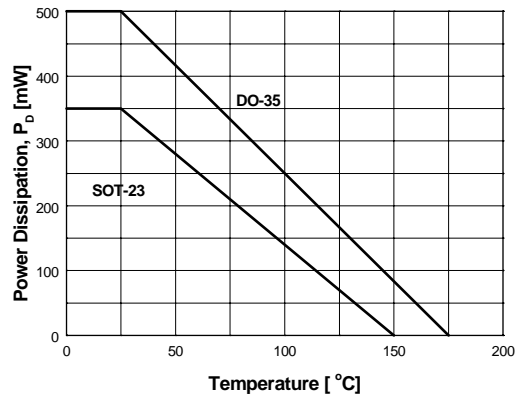


Figure 10. Power Derating Curve

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