

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	$^\circ\text{C}/\text{W}$

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	μA
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

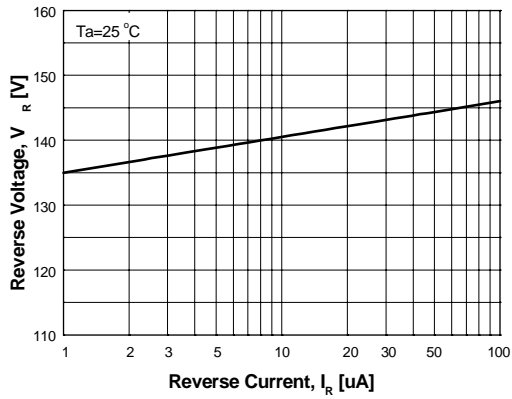


Figure 1. Reverse Voltage vs Reverse Current
BV - 1.0 to 100 μ A

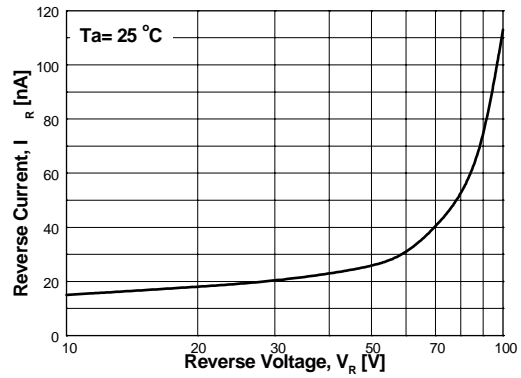


Figure 2. Reverse Current vs Reverse Voltage
 I_R - 10 to 100V

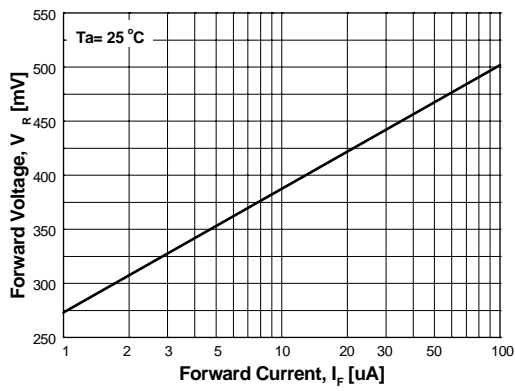


Figure 3. Forward Voltage vs Forward Current
VF - 1 to 100 μ A

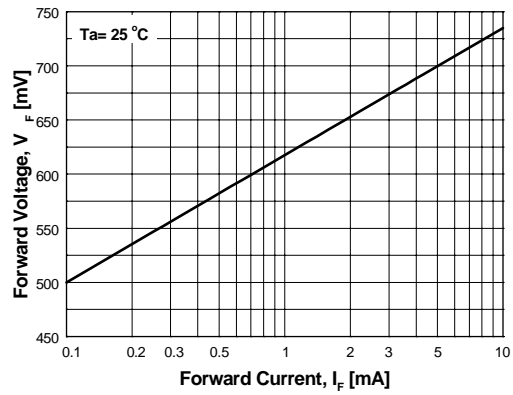


Figure 4. Forward Voltage vs Forward Current
VF - 0.1 to 100mA

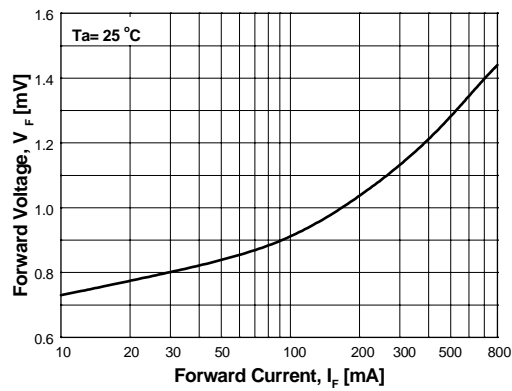


Figure 5. Forward Voltage vs Forward Current
VF - 10 to 800mA

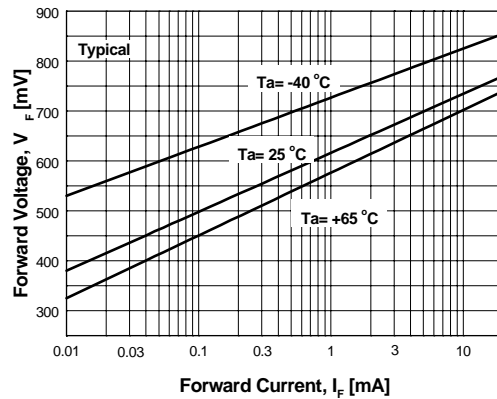


Figure 6. Forward Voltage vs Ambient Temperature
VF - 0.01 - 20mA(-40 to +65 Deg C)

Typical Characteristics (Continued)

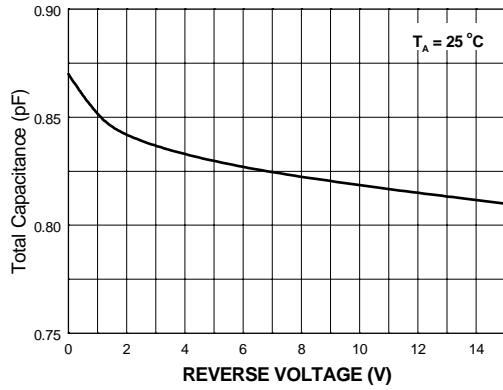


Figure 7. Total Capacitance

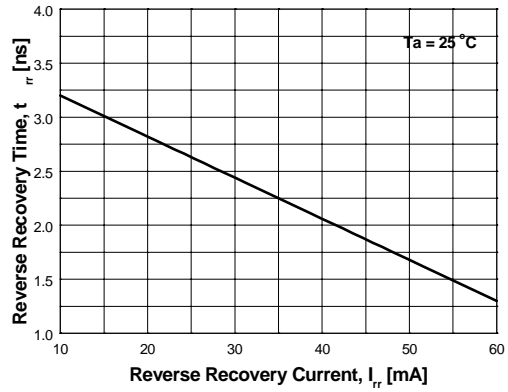


Figure 8. Reverse Recovery Time vs Reverse Recovery Current

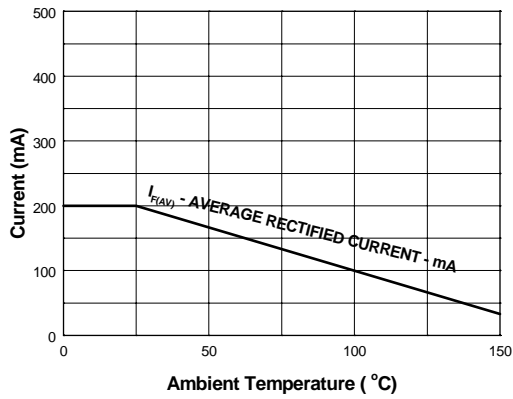


Figure 9. Average Rectified Current ($I_{F(AV)}$) versus Ambient Temperature (T_A)

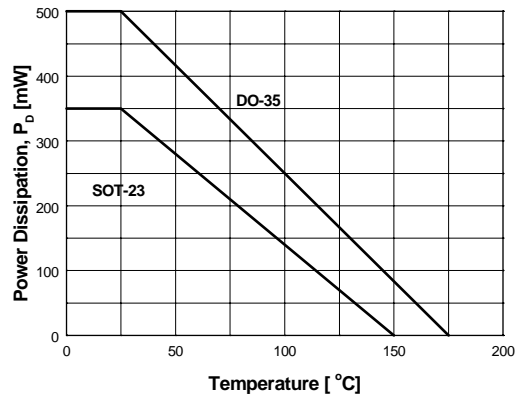


Figure 10. Power Derating Curve

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Programmable Active Droop [™]		POP [™]	SPM [™]	

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