FAIRCHILD
SEMICONDUCTOR®

D3D7_FDH6626B

DO-35
COLOR BAND DENOTES CATHODE

Small Signal Diode

Absolute Maximum Ratings * T_A = 25°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 Pulse Width = 1.0 microsecond	 1.0 4.0	 A A
T_{STG}	Storage Temperature Range	-65 to +200	°C
T_J	Operating Junction Temperature	175	°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	°C/W

Electrical Characteristics T_A=25°C unless otherwise noted

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

Typical Characteristics

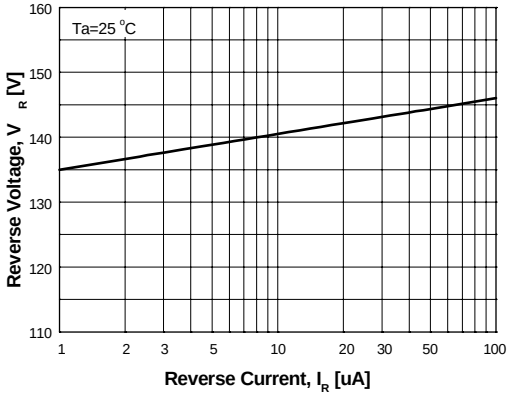

Figure 1. Reverse Voltage vs Reverse Current
BV - 1.0 to 100μA

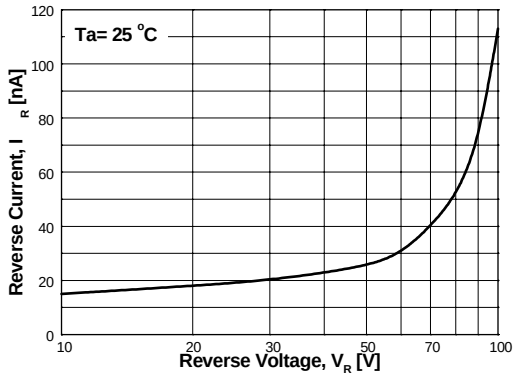

Figure 2. Reverse Current vs Reverse Voltage
I_R - 10 to 100V

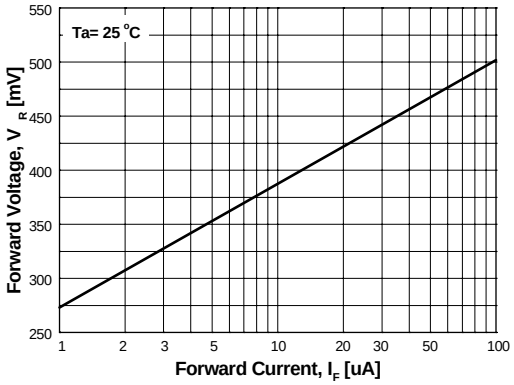

Figure 3. Forward Voltage vs Forward Current
VF - 1 to 100μA

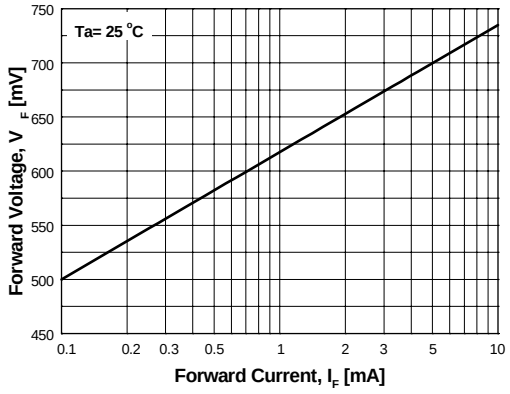

Figure 4. Forward Voltage vs Forward Current
VF - 0.1 to 100mA

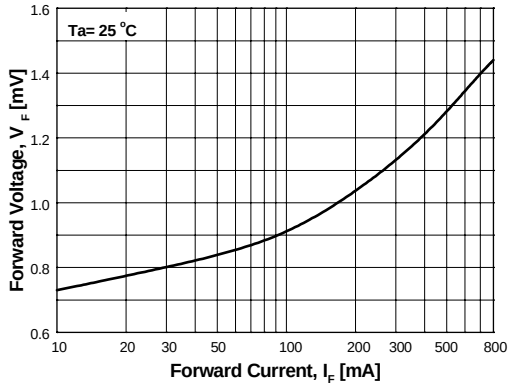

Figure 5. Forward Voltage vs Forward Current
VF - 10 to 800mA

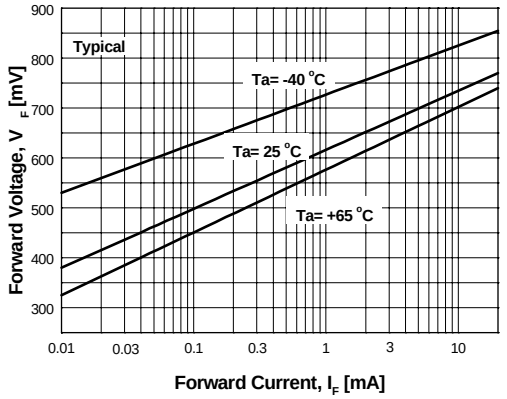

Figure 6. Forward Voltage vs Ambient Temperature
VF - 0.01 - 20mA(-40 to +65 Deg C)

Typical Characteristics (Continued)

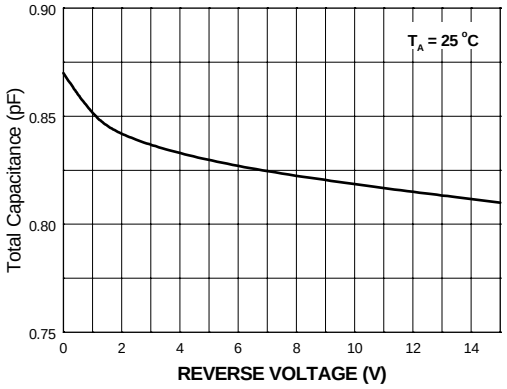

Figure 7. Total Capacitance

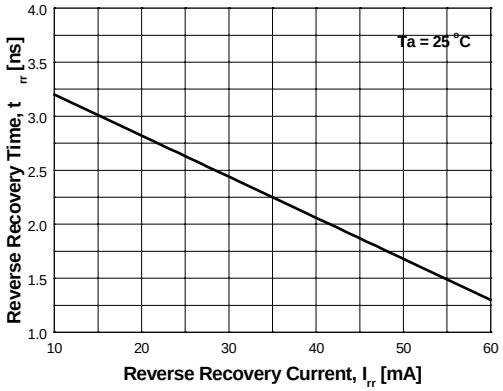

Figure 8. Reverse Recovery Time vs Reverse Recovery Current

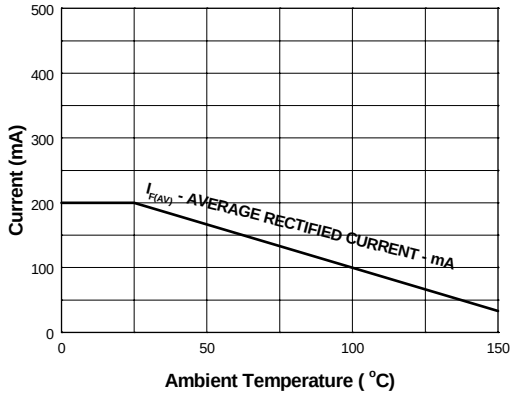

Figure 9. Average Rectified Current($I_{F(AV)}$) versus Ambient Temperature(T_A)

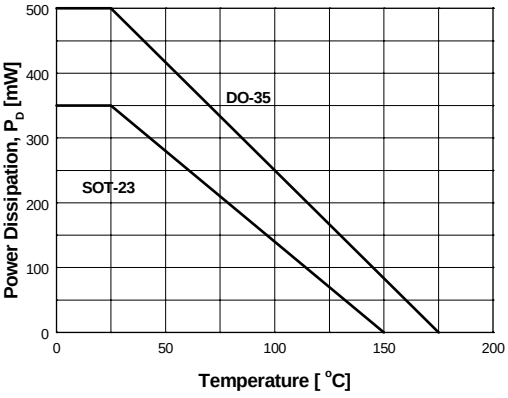

Figure 10. Power Derating Curve

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