F Series (FND-100;FND-100Q;FOD-100)

T-41-53

Features

- Large Active Area
- Wide Spectral Range
- Low NEP
- High Responsivity
- Ultra-Fast Rise and Fall Time
- Isolated Photodiode Chip

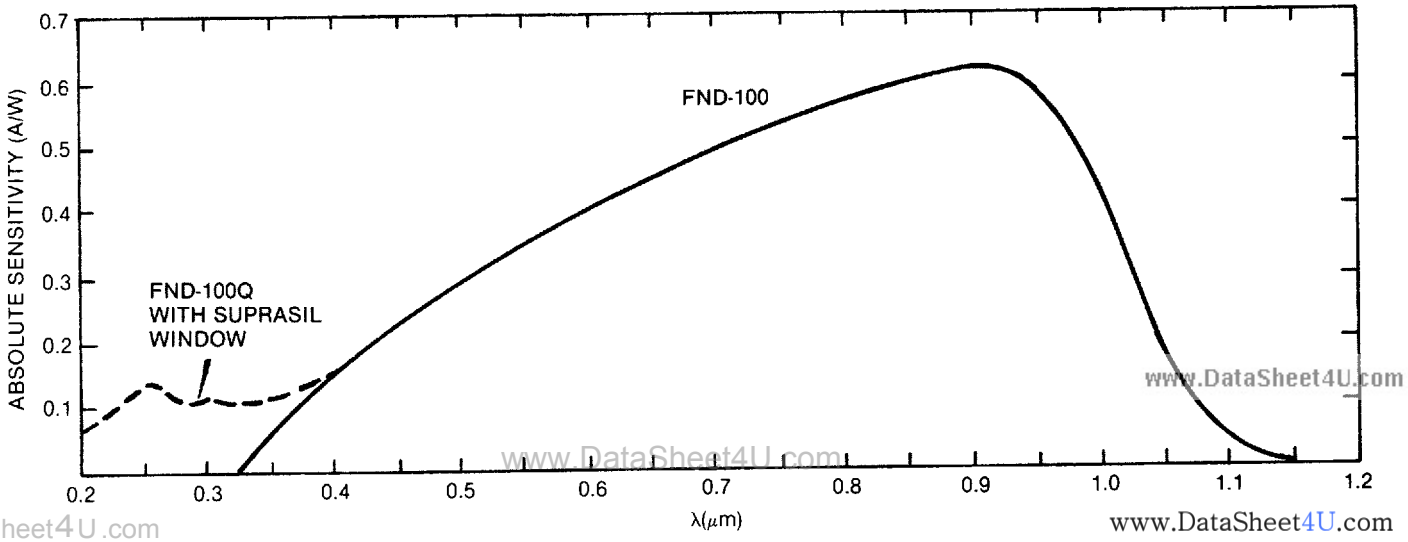
Operating Data and Specifications at 23°C: Typical Performance at 90 V Bias

Characteristic	Minimum	Typical	Maximum	Units
Active Area	—	5.1	—	Sq. mm
Spectral Range	400	—	1150	nm
	200	—	1150	nm (FND-100Q)
Responsivity	0.5	0.6	—	A/W at 850 nm
Bandwidth	—	350	—	MHz into 50 ohms
Rise Time	—	<1	—	nS into 50 ohms
Operating Voltage	0	-	100 V	
Breakdown Voltage[1]	125	150	—	V
Capacitance	—	8.5	10	pF
Dark Current	—	10	25	nA
Series Resistance	—	20	—	ohms
Noise Current	—	60	90	10^{-15} A/Hz$^{1/2}$ at 1 KHz
NEP (850,10 MHz,1)	—	0.10	0.18	10^{-12} W/Hz$^{1/2}$
Response Linearity	—	—	1	% over 7 Decades
Operating Temperature:				
FND-100	−55	—	+125	°C
FOD-100,FND-100Q	−55	—	+70	°C
Package Style:				
FOD-100, FND-100Q	←	TO-5	→	
FOD-100	←	AMP 530525-1	→	

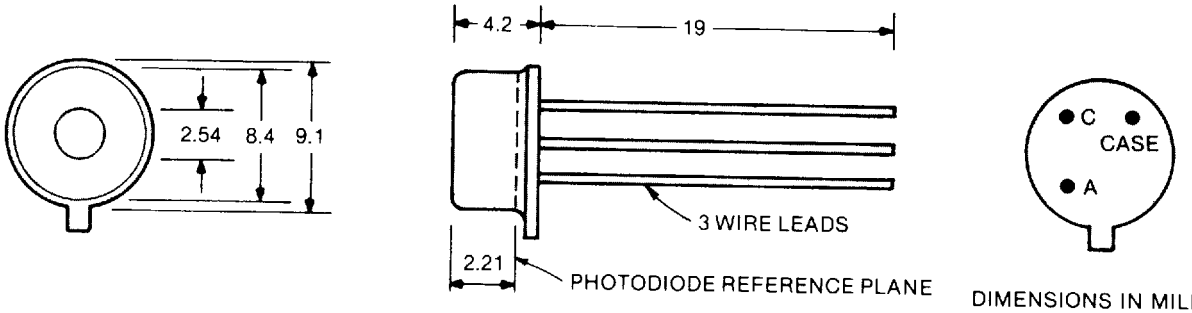
Notes

1. Breakdown voltage measured at 100 microamps dark current.

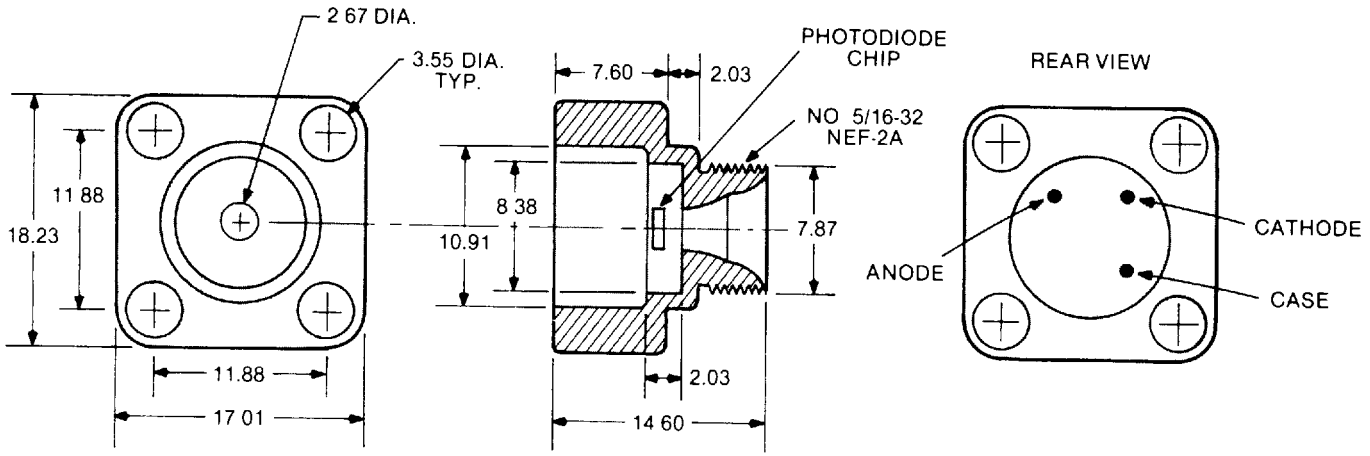
Typical Spectral Response



Mechanical Data: FND-100, FND-100Q



Mechanical Data: FOD-100



NOTE:
ALL DIMENSIONS IN MILLIMETERS
PHOTODIODE / FIBER SEPARATION 1.02 mm

MATING CONNECTOR: AMP INC.
P/N 530530-1, 2, 3*
*E.I. DuPONT PFX 0715 CABLE

The FOD-100 is designed to provide optimum utilization of light collection efficiency and maximum operating bandwidth for applications in communications and data transmission.