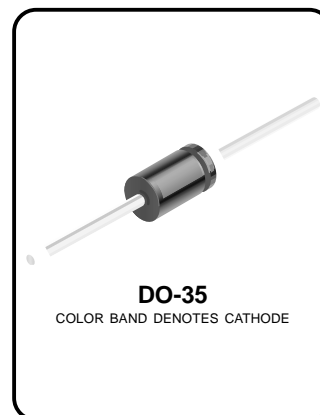**FAIRCHILD**

SEMICONDUCTOR®

Zeners
1N5221B - 1N5257B

Absolute Maximum Ratings* T_A = 25°C unless otherwise noted

Tolerance: B = 5%

Symbol	Parameter	Value	Units
P_D	Power Dissipation Derate above 75°C	500 4.0	mW mW/°C
T_{STG}	Storage Temperature Range	-65 to +200	°C
T_J	Maximum Junction Operating Temperature	+ 200	°C
	Lead Temperature (1/16" from case for 10 seconds)	+ 230	°C
	Surge Power**	10	W

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

**Non-recurrent square wave PW= 8.3 ms, TA= 50 degrees C.

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

DO-35
COLOR BAND DENOTES CATHODE

Electrical Characteristics T_A = 25°C unless otherwise noted

Device	V_Z (V)	Z_Z (Ω)	@	I_{ZT} (mA)	Z_{ZK} (Ω)	@	I_{ZK} (mA)	I_R (µA)	@	V_R (V)	T_C (%/°C)
1N5221B	2.4	30		20	1,200		0.25	100		1.0	- 0.080
1N5223B	2.7	30		20	1,300		0.25	75		1.0	- 0.075
1N5226B	3.3	28		20	1,600		0.25	25		1.0	- 0.07
1N5227B	3.6	24		20	1,700		0.25	15		1.0	- 0.065
1N5228B	3.9	23		20	1,900		0.25	10		1.0	- 0.06
1N5229B	4.3	22		20	2,000		0.25	5.0		1.0	+/- 0.055
1N5230B	4.7	19		20	1,900		0.25	2.0		2.0	+/- 0.03
1N5231B	5.1	17		20	1,600		0.25	2.0		2.0	+/- 0.03
1N5232B	5.6	11		20	1,600		0.25	3.0		3.0	0.038
1N5233B	6.0	7.0		20	1,600		0.25	3.5		3.5	0.038
1N5234B	6.2	7.0		20	1,000		0.25	4.0		4.0	0.045
1N5235B	6.8	5.0		20	750		0.25	5.0		5.0	0.05
1N5236B	7.5	6.0		20	500		0.25	6.0		6.0	0.058
1N5237B	8.2	8.0		20	500		0.25	6.5		6.5	0.062
1N5238B	8.7	8.0		20	600		0.25	6.5		6.5	0.065
1N5239B	9.1	10		20	600		0.25	7.0		7.0	0.068
1N5240B	10	17		20	600		0.25	8.0		8.0	0.075
1N5241B	11	22		20	600		0.25	8.4		8.4	0.076

V_F Forward Voltage = 1.1 V Maximum @ I_F = 200 mA for all 1N5200 series

Zeners (1N5221B - 1N5257B)
(continued)

Electrical Characteristics (Continued) $T_A = 25°C$ unless otherwise noted

Device	V_Z (V)	Z_Z (Ω)	@	I_{ZT} (mA)	Z_{ZK} (Ω)	@	I_{ZK} (mA)	V_R (V)	@	I_R (μA)	T_C (%/°C)
1N5242B	12	30		20	600		0.25	9.1		0.1	0.077
1N5243B	13	13		9.5	600		0.25	9.9		0.1	0.079
1N5244B	14	15		9.0	600		0.25	10		0.1	0.080
1N5245B	15	16		8.5	600		0.25	11		0.1	0.082
1N5246B	16	17		7.8	600		0.25	12		0.1	0.083
1N5247B	17	19		7.4	600		0.25	13		0.1	0.084
1N5248B	18	21		7.0	600		0.25	14		0.1	0.085
1N5249B	19	23		6.6	600		0.25	14		0.1	0.085
1N5250B	20	25		6.2	600		0.25	15		0.1	0.086
1N5251B	22	29		5.6	600		0.25	17		0.1	0.087
1N5252B	24	33		5.2	600		0.25	18		0.1	0.088
1N5253B	25	35		5.0	600		0.25	19		0.1	0.088
1N5254B	27	41		4.6	600		0.25	21		0.1	0.089
1N5255B	28	44		4.5	600		0.25	21		0.1	0.090
1N5256B	30	49		4.2	600		0.25	23		0.1	0.091
1N5257B	33	58		3.8	700		0.25	25		0.1	0.092

V_F Forward Voltage = 1.1 V Maximum @ I_F = 200 mA for all 1N5200 series

TRADEMARKS

ACEx™	FACT™	ImpliedDisconnect™	PACMAN™	SPM™
ActiveArray™	FACT Quiet Series™	ISOPLANAR™	POP™	Stealth™
Bottomless™	FAST®	LittleFET™	Power247™	SuperSOT™-3
CoolFET™	FASTr™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
EcoSPARK™	GTO™	MSX™	QT Optoelectronics™	TinyLogic™
E²CMOS™	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
EnSigna™	I²C™	OCX™	RapidConfigure™	UHC™
Across the board. Around the world.™		OCXPro™	RapidConnect™	UltraFET®
The Power Franchise™		OPTOLOGIC®	SILENT SWITCHER®	VCX™
Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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