ELECTRONICS, INC.
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1N4531
Small Signal Diode

Features:

- DO–34 Package

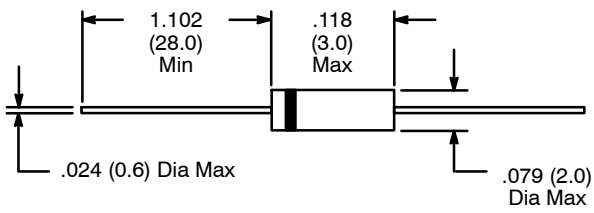
Absolute Maximum Ratings:

Repetitive Peak Reverse Voltage, V_{RRM} 75V
Continuous Reverse Voltage, V_R 75V
Continuous Forward Current, I_F 200mA
Repetitive Peak Forward Current, I_{FRM} 450mA
None–Repetitive Forward Surge Current (Square Wave, T_J = +25°C prior to surge), I_{FSM}
Pulse Width = 1.0 microsecond 4.0A
Pulse Width = 1.0 millisecond 1.0A
Pulse Width = 1.0 second 0.5A
Power Dissipation (T_A = +25°C), P_D 500mW
Operating Junction Temperature, T_J . . . . . +200°C
Storage Temperature Range, T_{stg} . . . . . –65° to +200°C
Thermal Resistance, Junction–to–Ambient (5mm Lead Length, Note 1), R_{thJA} . . . . . +350°C/W
Thermal Resistance, Junction–to–Tie–Point (5mm Lead Length), R_{thJTP} . . . . . +120°C/W

Note 1. Device mounted on a printed circuit board without metallization pad.

Electrical Characteristics: (T_J = +25°C, unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	I_F = 10mA	–	–	1000	mV
Reverse Current	I_R	V_R = 20V	–	–	25	nA
		V_R = 20V, T_A = +150°C	–	–	50	μA
Diode Capacitance	C_d	V_R = 0, f = 1MHz	–	–	4	pF
Reverse Recovery Time	t_{rr}	Switched from I_F = 10mA to I_R =60mA, R_L = 100Ω, measured at I_R = 1mA	–	–	4	ns
Forward Recovery Voltage	t_{fr}	Switched from I_F = 100mA, $t_r \le$ 30ns	–	–	4	ns



Color Band Denotes Cathode