January 2005

BAY73

Small Signal Diode

DO-35
Color Band Denotes Cathode

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

Symbol	Parameter	Value	Unit
V_{RRM}	Maximum Repetitive Reverse Voltage	125	V
$I_{F(AV)}$	Average Rectified Forward Current	500	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	Value	Unit
P_D	Power Dissipation	500	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	300	°C/W

Electrical Characteristics T_C = 25°C unless otherwise noted

Symbol	Parameter	Conditions	Min.	Max	Units
V_R	Breakdown Voltage	I_R = 100µA	125		V
V_F	Forward Voltage	I_F = 1mA I_F = 5mA I_F = 10mA I_F = 50mA I_F = 100mA I_F = 200mA	0.60 0.67 0.69 0.78 0.81 0.85	0.68 0.75 0.80 0.88 0.94 1.0	V V V V V V
I_R	Reverse Leakage	V_R = 100V V_R = 100V, T_A = 125°C V_R = 20V, T_A = 125°C		5 1 500	nA µA nA
C_T	Total Capacitance	V_R = 0, f = 1.0MHz		8	pF
t_{rr}	Reverse Recovery Time	I_F = I_R = 30mA, I_{rr} = 3mA, R_L = 100Ω		1.0	µs

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