ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748–5089

NTE519
Silicon Rectifier Diode
Ultra Fast Switch

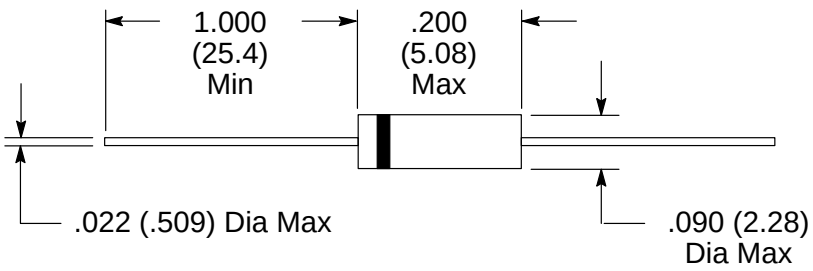
Absolute Maximum Ratings:

Repetitive Peak Reverse Voltage, V_{RRM} 100V
Reverse Voltage, V_R 75V
Surge Forward Current (t_p = 1μs), I_{FSM} 2A
Repetitive Peak Forward Current, I_{FRM} 500mA
Forward Current, I_F 300mA
Average Forward Current (V_R = 0), I_{FAV} 150mA
Power Dissipation (I = 4mm), P_V
T_L = +45°C 440mW
$T_L \le$ +25°C 500mW
Junction Temperature, T_J . . . . . +200°C
Storage Temperature Range, T_{stg} . . . . . –65° to +200°C
Junction to Ambient (I = 4mm, T_L = constant), R_{thJA} 350K/W

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage Drop	V_F	I_F = 10mA	–	–	1	V
Reverse Current	I_R	V_R = 20V	–	–	25	nA
		V_R = 20V, T_J = +150°C	–	–	50	μA
		V_R = 75V	–	–	5	μA
Breakdown Voltage	$V_{(BR)}$	I_R = 100μA, Note 1	100	–	–	V
Diode Capacitance	C_D	V_R = 0, f = 1MHz, V_{HF} = 50mV	–	–	4	pF
Rectification Efficiency	η_r	V_{HF} = 2V, f = 100MHz	45	–	–	%
Reverse Recovery Time	t_{rr}	$I_F = I_R$ = 10mA, i_R = 1mA	–	–	8	ns
		I_F = 10mA, V_R = 6V, $i_R = 0.1 \bullet I_R$, R_L = 100Ω	–	–	4	nS

Note 1. $\frac{t_p}{T}$ = 0.01, t_p = 0.3ms



Color Band Denotes Cathode