

T-03-09

ULTRA FAST LOW CAPACITANCE DIODES

1N3064
1N4305
1N4454

ABSOLUTE MAXIMUM RATINGS

- T_{RR} 4.0 ns @ $I_F = 10$ mA, $I_R = 10$ mA, $V_R = 1.0$ V
- B_V 75 V (MIN)
- C 2.0 pF @ $V_R = 0$, $f = 1.0$ MHz

Temperatures

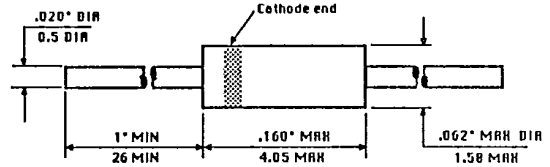
Storage Temperature Range	-65 °C to +200 °C
Maximum Junction Operating Temperature	+175 °C
Lead Temperature	+260 °C

Power Dissipation

Maximum Total Power Dissipation at 25 °C Ambient	500 mW
Linear Power Derating Factor (from 25 °C)	3.33 mW/ °C

Maximum Voltage and Currents

WIV	Working Inverse Voltage	50 V
I_O	Average Rectified Current	100 mA
I_F	Forward Current Steady State	300 mA
I_F	Peak Repetitive Forward Current	400 mA
I_F (surge)	Peak Forward Surge Current	4.0 A
	Pulse Width = 1.0 μ s	1.0 A
	Pulse Width = 1.0 s	

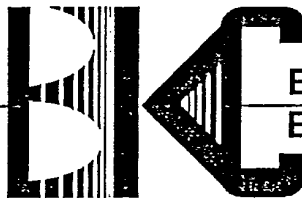


DO-35 PACKAGE

ELECTRICAL CHARACTERISTICS (25 °C Ambient Temperature unless otherwise noted)

SYMBOL	CHARACTERISTIC	MIN	MAX	UNITS	TEST CONDITIONS
V_F	Forward Voltage	0.610	0.710	V	$I_F = 2.0$ mA
		0.550	0.650	V	$I_F = 1.0$ mA
		0.505	0.575	V	$I_F = 250$ μ A
			1.0	V	$I_F = 10$ mA
			0.70	0.85	V
I_R	Reverse Current		0.1	μ A	$V_R = 50$ V
			100	μ A	$V_R = 50$ V, $T_A = 150$ °C
B_V	Breakdown Voltage	75		V	$I_R = 5.0$ μ A
T_{RR}	Reverse Recovery Time		2.0	ns	$I_F = 10$ mA, $V_R = 6.0$ V $R_L = 100$ Ω
			4.0	ns	$I_F = I_R = 10$ mA, $R_L = 100$ Ω $V_R = 1.0$ V
C	Capacitance		2.0	pF	$V_R = 0$, $f = 1.0$ MHz
RE	Rectification Efficiency	45		%	$f = 1.0$ MHz
$\Delta V_F / ^\circ C$	Forward Voltage Temperature Coefficient		3.0	mV/ °C	

6 Lake Street
P.O. Box 1436
Lawrence, MA 01841
Telephone (617) 681-0392
TeleFax (617) 681-9135
Telex 928377



BKC International
Electronics, Inc.