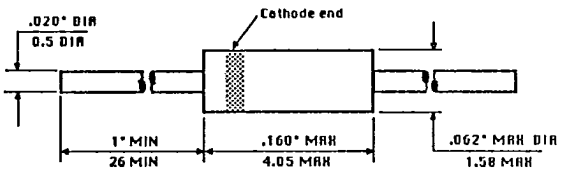
T-03-09

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



DO-35 PACKAGE

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	
	Pulse Width = 1.0 µs	4.0 A
	Pulse Width = 1.0 s	1.0 A

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 µA
	1N3064, 1N4454		1.0	V	I_F = 10 mA
	1N4305	0.70	0.85	V	I_F = 10 mA
I_R	Reverse Current		0.1	µA	V_R = 50 V
			100	µA	V_R = 50 V, T_A = 150 °C
B_V	Breakdown Voltage	75		V	I_R = 5.0 µA
T_{RR}	Reverse Recovery Time				
	1N4305		2.0	ns	If = 10 mA, V_R = 6.0 V, R_L = 100 Ω
	1N3064, 1N4305, 1N4454		4.0	ns	I_F = I_R = 10mA, 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
ΔVF/ °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.