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**1N3062 • 1N3063 • 1N3064 • 1N4305 • 1N4454**  
**ULTRA FAST LOW CAPACITANCE**  
**DIFFUSED SILICON PLANAR\* DIODES**

- C ... 2.0 pF @  $V_R = 0$ ,  $f = 1.0$  MHz
- $t_{rr}$  ... 4.0 ns @  $I_f = 10$  mA,  $R_f = 10$  mA,  $V_f = 1.0$  V
- BV ... 75 V (MIN)

**ABSOLUTE MAXIMUM RATINGS ( $T_A = 25^\circ\text{C}$ ) (Note 1)**

Maximum Temperatures	1N3062 1N3063	1N3064	1N4454	1N4305
Storage Temperature	-65°C to +200°C	-65°C to +175°C	-65°C to +175°C	-65°C to +200°C
Operating Temperature	-65°C to +175°C	-65°C to +150°C	-65°C to +150°C	-65°C to +150°C
<b>Maximum Power Dissipation</b>				
Total Dissipation	250 mW	250 mW	500 mW	500 mW
Linear Derating Factor	1.67 mW/°C	2.0 mW/°C	4.0 mW/°C	2.85 mW/°C
<b>Maximum Voltages and Currents</b>				
WIV Working Inverse Voltage	50 V	50 V	40 V	75 V
$I_O$ Average Rectified Current	75 mA	75 mA	200 mA	
$I_F$ Forward Current Steady State dc	115 mA	115 mA	400 mA	
$i_f$ Recurrent Peak Forward Current	225 mA	225 mA	600 mA	
$i_f$ (surge) Peak Forward Surge Current				
Pulse Width = 1.0 s	500 mA	500 mA	1.0 A	
Pulse Width = 1.0 $\mu$ s	2.0 A	2.0 A	4.0 A	

**ELECTRICAL CHARACTERISTICS ( $25^\circ\text{C}$  Ambient Temperature unless otherwise noted)**

SYMBOL	CHARACTERISTIC	MIN.	MAX.	UNITS	TEST CONDITIONS										
$V_F$	Forward Voltage	1N3062 1N3063 1N4305	0.700	1.0	V	$I_F = 20$ mA									
				0.850	V	$I_F = 10$ mA									
				0.610	V	$I_F = 2.0$ mA									
		1N3064 1N4454	0.550	0.650	V	$I_F = 1.0$ mA									
				0.505	V	$I_F = 250$ $\mu$ A									
				1.0	V	$I_F = 10$ mA									
$I_R$	Reverse Current		0.1	$\mu$ A	$V_R = 50$ V										
$I_R$	Reverse Current		100	$\mu$ A	$V_R = 50$ V, $T_A = 150^\circ\text{C}$										
BV	Breakdown Voltage	75		V	$I_R = 5.0$ $\mu$ A										
$t_{rr}$	Reverse Recovery Time	1N4305 1N3062	2.0	ns		$I_f = 10$ mA, $V_f = 6.0$ V, $R_L = 100$ $\Omega$									
							1N3063 1N3064 1N4454 1N4305	4.0	ns		$I_f = I_r = 10$ mA, $R_L = 100$ $\Omega$ , $V_f = 1.0$ V				
		C	Capacitance	1N3062 1N3063	1.0	pF						$V_R = 0$ , $f = 1.0$ MHz			
													1N3064 1N4454 1N4305	2.0	pF
				RE	Rectification Efficiency	45		%	$f = 1.0$ MHz						
$\Delta V_F/^\circ\text{C}$	Forward Voltage Temperature Coefficient									1N3062 1N3063 1N3064	1.8		mV/°C		
		1N4454 1N4305	3.0												mV/°C