

DESCRIPTION

The MI204 PIN diode is employing a high reliability glass construction designed for RF small signal attenuator in VHF UHF.

FEATURES

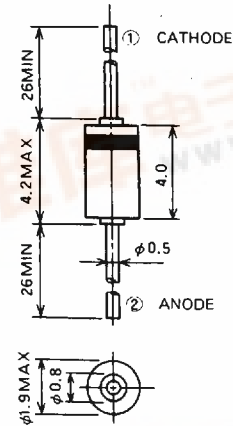
- Long carrier lifetime
- Low distortion
- Large dynamic range

APPLICATION

RF attenuator RF switching

OUTLINE DRAWING

Dimension: mm

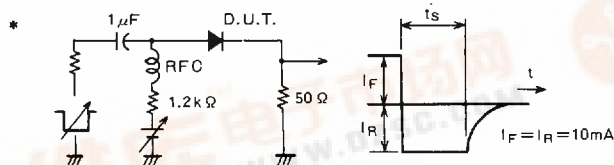


ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

Symbol	Parameter	Rating	Unit
V_{RM}	Repetitive peak reverse voltage	30	V
V_R	Reverse voltage	28	V
P	Power dissipation	200	mW
T_j	Junction temperature	175	$^\circ\text{C}$
T_{stg}	Storage temperature	-55 to 175	$^\circ\text{C}$

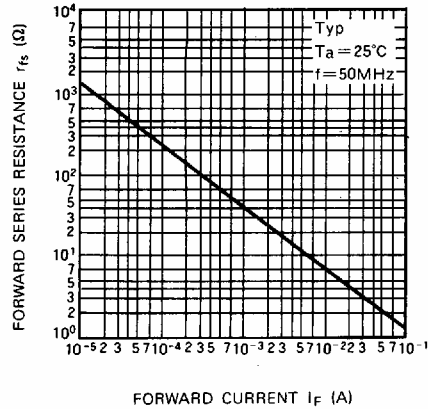
ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
I_{R1}	Reverse current	$V_R = 30\text{ V}$			10	μA
I_{R2}	Reverse current	$V_R = 28\text{ V}$			0.5	μA
V_F	Forward voltage	$I_F = 100\text{ mA}$			1.0	V
r_{fs1}	Forward series resistance	$I_F = 10\text{ mA}, f = 50\text{ MHz}$		5.5	10	Ω
r_{fs2}		$I_F = 10\text{ }\mu\text{A}, f = 50\text{ MHz}$	1.0	1.5		k Ω
C_t	Diode capacitance	$V_R = 15\text{ V}, f = 1.0\text{ MHz}$		0.7	1.2	pF
τ	Life time	$I_F = 10\text{ mA}$		2.1		μs
$*t_s$	Storage time	$I_F = 10\text{ mA}, I_R = 10\text{ mA}$	0.6	1.5		μs

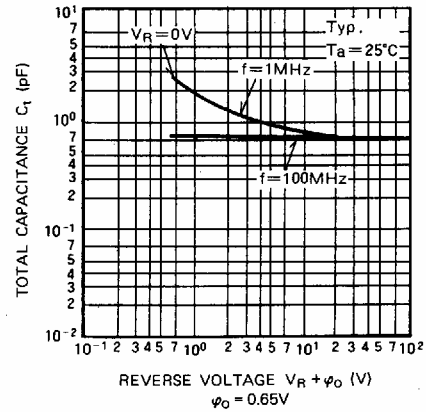


TYPICAL PERFORMANCE DATA

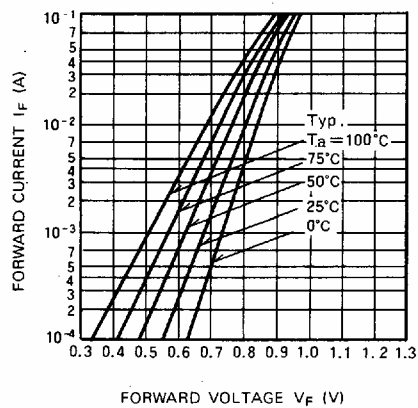
**FORWARD SERIES RESISTANCE
VS. FORWARD CURRENT
CHARACTERISTICS**



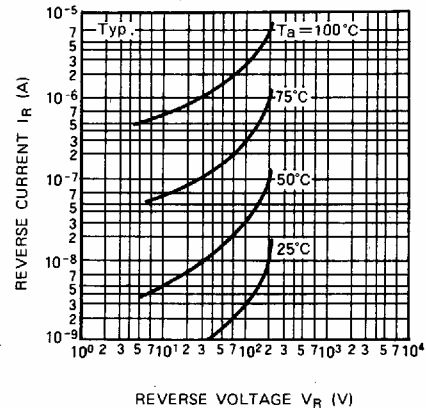
**TOTAL CAPACITANCE VS.
REVERSE VOLTAGE CHARACTERISTICS**



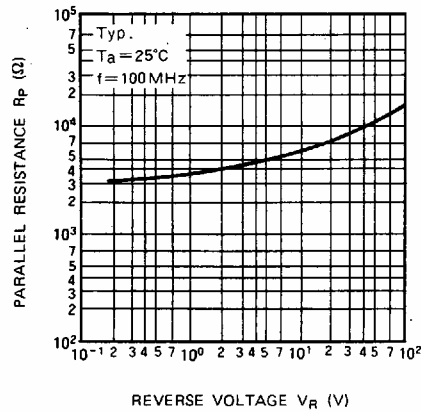
**FORWARD CURRENT VS.
FORWARD VOLTAGE CHARACTERISTICS**



**REVERSE CURRENT VS.
REVERSE VOLTAGE CHARACTERISTICS**



**PARALLAEL RESISTANCE VS.
REVERSE VOLTAGE CHARACTERISTICS**



**INTER MODULATION
DISTORTION**

