

ANTENNA SWITCH MV201

VARACTOR DIODE

DESCRIPTION

The MV201 varactor diode is employing a high reliability glass, construction designed for AFC in VHF UHF.

FEATURES

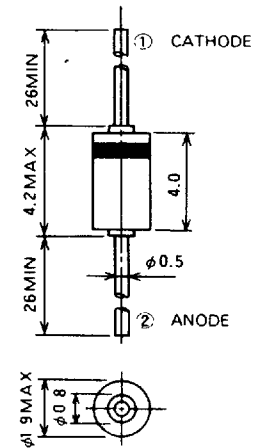
- High dc/dv due to hyper abrupt junction
- Large Q

APPLICATION

AFC of VHF UHF

OUTLINE DRAWING

Dimension mm



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

Symbol	Parameter	Ratings	Unit
V_R	Reverse voltage	23	V
P	Power dissipation	250	mW
T_{stg}	Storage temperature	$-55 \sim +100$	$^\circ\text{C}$
T_{opr}	Operation temperature	$-55 \sim +100$	$^\circ\text{C}$

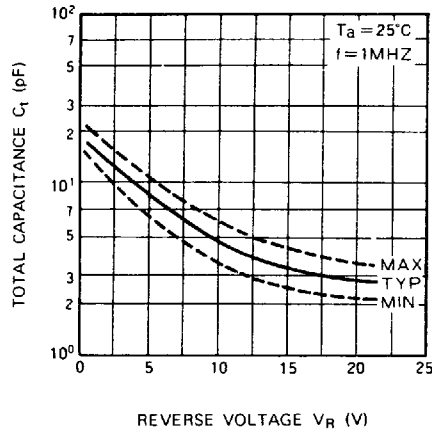
ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)R}$	Reverse break-down voltage	$I_R = 10 \mu\text{A}$	23			V
I_R	Reverse current	$V_R = 20\text{V}$			150	nA
C_{t1}	Diode capacitance	$V_R = 3\text{V}, f = 1\text{MHz}$	9	11	14	pF
C_{t2}		$V_R = 20\text{V}, f = 50\text{MHz}$	2.3		3.3	pF
Q	Q	$V_R = 3\text{V}, f = 50\text{MHz}$	160			—
L_s	Lead inductance	Total lead length 10mm		2.5		nH

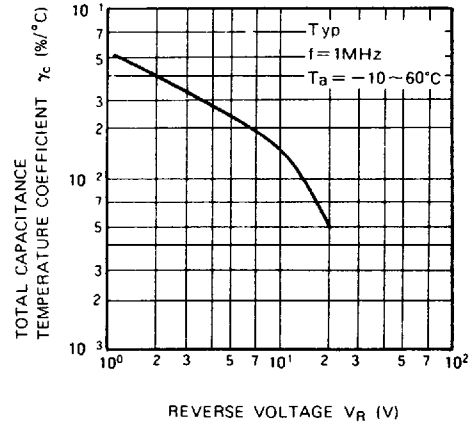
VARACTOR DIODE

TYPICAL PERFORMANCE DATA

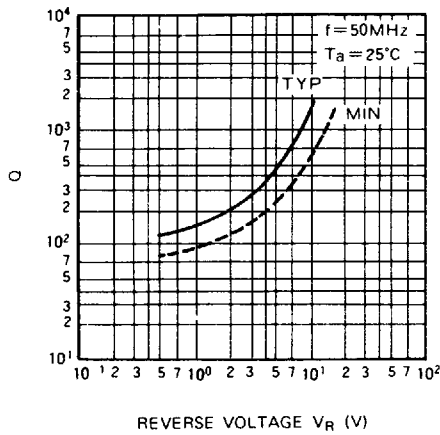
TOTAL CAPACITANCE VS. REVERSE VOLTAGE CHARACTERISTICS



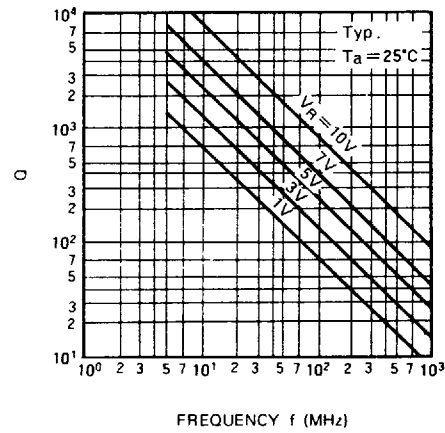
TOTAL CAPACITANCE TEMPERATURE COEFFICIENT VS. REVERSE VOLTAGE CHARACTERISTICS



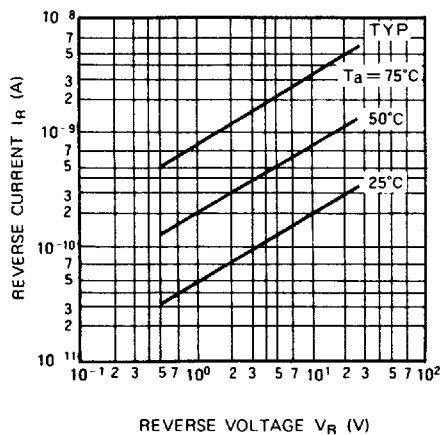
Q VS. REVERSE VOLTAGE CHARACTERISTICS



Q VS. FREQUENCY CHARACTERISTICS



REVERSE CURRENT VS. REVERSE VOLTAGE CHARACTERISTICS



INDUCTANCE VS. TOTAL LEAD LENGTH CHARACTERISTICS

