

1S2638PF

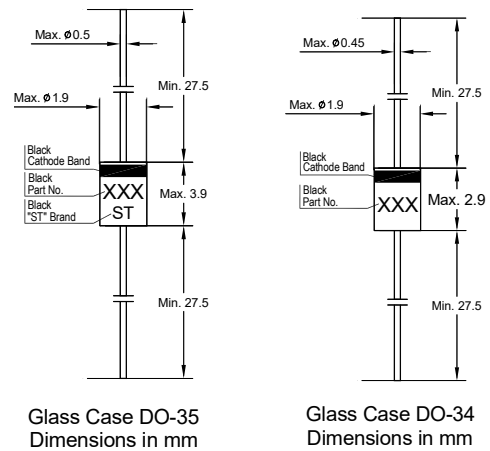
Tuner AFC Diode

The 1S2638 is a variable capacitor diode intended for AFC applications, VHF TV applications, FM receivers, Air craft communications gear, and other receivers in the 1 MHz to 500 MHz.

Standard package is DO-35 case, DO-34 case is available upon request.

Features

- Lead Free



Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

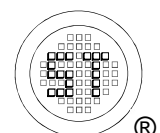
Parameter	Symbol	Value	Unit
Breakdown Voltage	V_{BR}	10	V
Average Forward Current	$I_{F(AV)}$	250	mA
Power Dissipation	P_{tot}	350	mW
Operating Temperature Range	T_{opr}	- 65 to + 175	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 200	$^\circ\text{C}$

Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	429	$^\circ\text{C/W}$

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

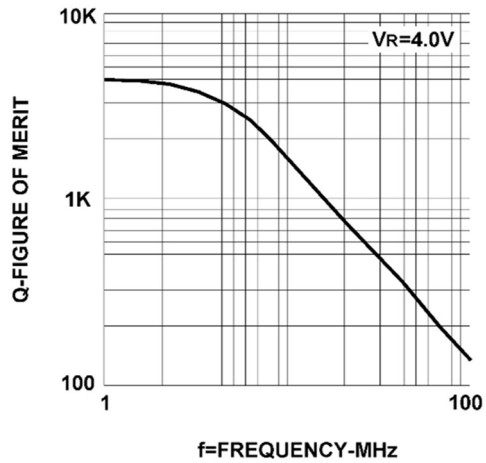
Parameter	Symbol	Min.	Max.	Unit
Reverse Current at $V_R = 10\text{ V}$	I_R	-	5	μA
Nominal Capacitance at $V_R = 4\text{ V}$, $f = 1\text{ MHz}$	C	5	20	pF
Figure Of Merit at $V_R = 4\text{ V}$, $f = 100\text{ MHz}$	Q	50	-	-



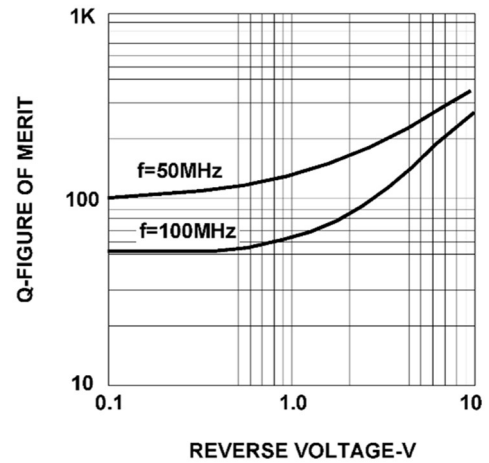
1S2638PF

Electrical Characteristics Curves

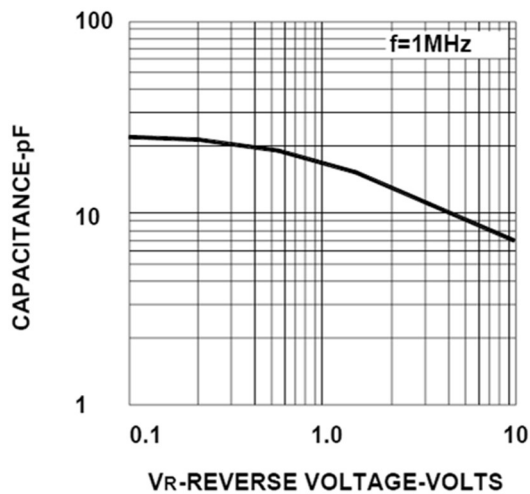
**FIGURE OF MERIT
VERSUS FREQUENCY**



**FIGURE OF MERIT
VERSUS REVERSE
VOLTAGE**



**CAPACITANCE VERSUS
REVERSE VOLTAGE**



Disclaimer: Our company reserve the right to make modifications, enhancements, improvements, corrections or other changes to improve product design, functions and reliability, anytime without notice. Semtech Electronics Limited makes no warranties, representations or warranties regarding the suitability of its products for any particular purpose, and does not accept any liability arising from the application or use of any product or circuit such as: Apply to medical, military, aircraft, space or life support equipment and expressly waive any and all liability, including but not limited to special, consequential or collateral damage.

