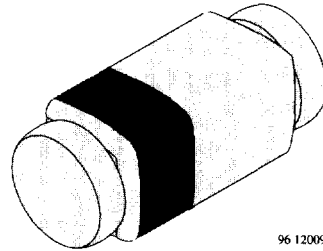


## Silicon PIN Diodes

### Features

- Wide frequency range 10 MHz to 1 GHz



96 12009

### Applications

Current controlled HF resistance in adjustable attenuators

### Absolute Maximum Ratings

$T_j = 25^\circ\text{C}$

Parameter	Test Conditions	Type	Symbol	Value	Unit
Reverse voltage			$V_R$	30	V
Forward current			$I_F$	50	mA
Junction temperature			$T_j$	125	$^\circ\text{C}$
Storage temperature range			$T_{stg}$	-55...+125	$^\circ\text{C}$

### Maximum Thermal Resistance

$T_j = 25^\circ\text{C}$

Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient	on PC board 50mmx50mmx1.6mm	$R_{thJA}$	500	K/W

### Electrical Characteristics

$T_j = 25^\circ\text{C}$

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F=20\text{mA}$		$V_F$			1	V
Reverse current	$V_R=30\text{V}$		$I_R$			50	nA
Diode capacitance	$f=100\text{MHz}, V_R=0$		$C_D$			0.5	pF
Differential forward resistance	$f=100\text{MHz}, I_F=1.5\text{mA}$		$r_f$			50	$\Omega$
Reverse impedance	$f=100\text{MHz}, V_R=0$	BA979	$z_r$	5			k $\Omega$
		BA979S	$z_r$	9			k $\Omega$
Minority carrier lifetime	$I_F=10\text{mA}, I_R=10\text{mA}$		$\tau$		4		$\mu\text{s}$

### Characteristics ( $T_j = 25^\circ\text{C}$ unless otherwise specified)

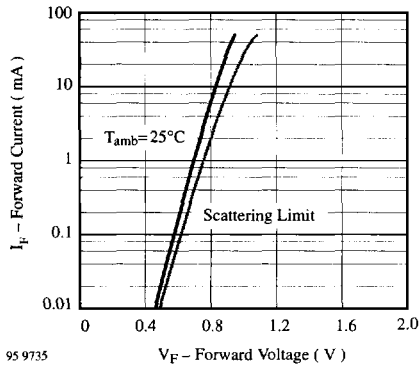


Figure 1. Forward Current vs. Forward Voltage

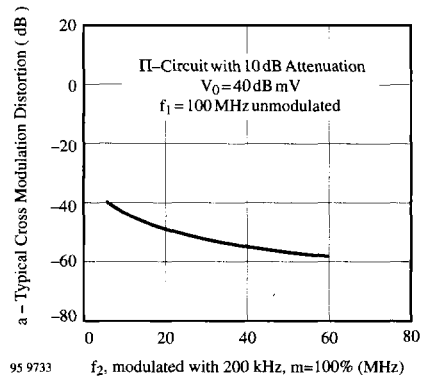


Figure 3. Typ. Cross Modulation Distortion vs. Frequency  $f_2$

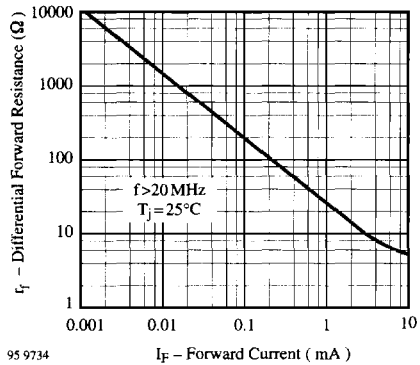
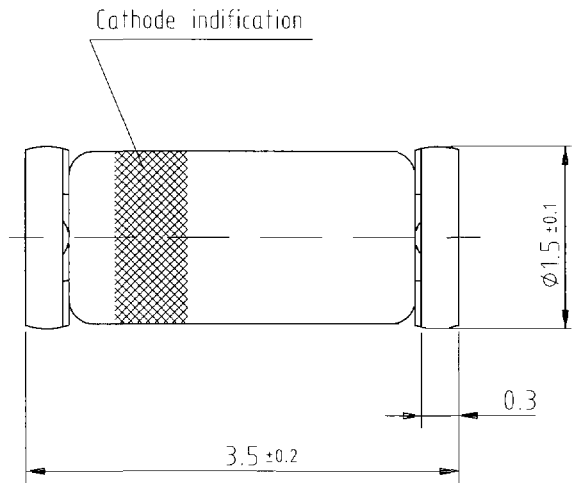
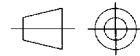
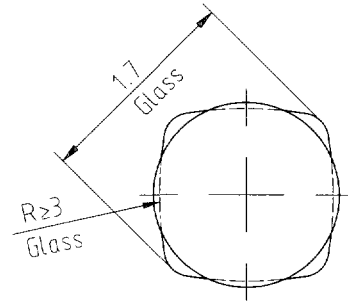


Figure 2. Differential Forward Resistance vs. Forward Current

**Dimensions in mm**



Glass case  
 Quadra MELF  
 similar to JEDEC 213 AA



Technical drawings  
 according to DIN  
 specifications

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