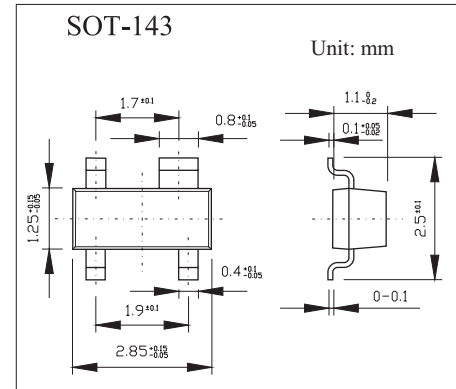


## Silicon PIN Diodes

## BAR60;BAR61



### ■ Features

- RF switch
- RF attenuator for frequencies above 10 MHz

### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Value	Unit
Reverse voltage	$V_R$	100	V
Forward current	$I_F$	140	mA
Total power dissipation, $T_s \leq 65^\circ\text{C}$ (Note 1)	$P_{tot}$	250	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature range	$T_{stg}$	-55 to +150	$^\circ\text{C}$
Operating temperature range	$T_{op}$	-55 to +150	$^\circ\text{C}$
Junction - ambient <sup>(1)</sup>	$R_{th JA}$	$\leq 580$	K/W
Junction - soldering point	$R_{th JS}$	$\leq 340$	K/W

Note

1. Unit Rating.Total Rating = Unit Rating  $\times$  1.5

### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current	$I_R$	$V_R = 50\text{ V}$			100	nA
		$V_R = 100\text{ V}$			1	$\mu\text{ A}$
Forward voltage	$V_F$	$I_F = 100\text{ mA}$			1.25	V
Diode capacitance	$C_T$	$V_R = 50\text{ V}, f = 1\text{ MHz}$		0.25	0.5	pF
		$V_R = 0, f = 100\text{ MHz}$		0.2		
Zero bias conductance	$g_p$	$V_R = 0\text{ V}, f = 100\text{ MHz}$		50		$\mu\text{ S}$
Charge carrier life time	$\tau_L$	$I_F = 10\text{ mA}, I_R = 6\text{ mA}$		1		$\mu\text{ S}$
Differential forward resistance	$r_f$	$f = 100\text{ MHz}, I_F = 0.01\text{ mA}$		2800		$\Omega$
		$I_F = 0.1\text{ mA}$		380		
		$I_F = 1.0\text{ mA}$		45		
		$I_F = 10\text{ mA}$		7		

### ■ Marking

Type	BAR60	BAR61
Marking	60	61