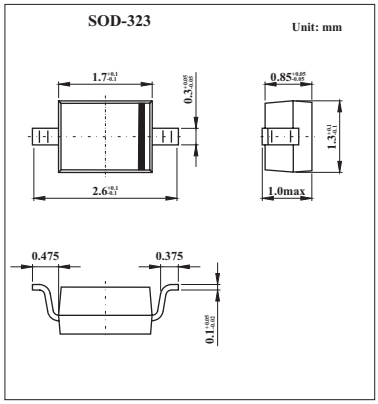
Silicon PIN Diode

BA595



■ Features

- Current-controlled RF resistor for switching and attenuating applications
- Frequency range 1 MHz ... 2 GHz
- Especially useful as antenna switch in TV-sat tuners
- Very low harmonics

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	50	V
Forward current	I_F	50	mA
Junction temperature	T_j	150	℃
Operating temperature range	Top	-55 to +125	℃
Storage temperature	Tstg	-55 to +150	℃
Junction - soldering point[1)]	R_{thJS}	≤ 370	K/W

Note

1. For calculation of R_{thJA} please refer to Application Note Thermal Resistance

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current	I_R	V_R = 30 V			20	nA
Forward voltage	V_F	I_F = 50 mA			1.1	V
Diode capacitance	C_T	V_R = 0 V, f = 100 MHz		0.26	0.4	pF
		V_R = 10 V, f = 1 MHz		0.22	0.6	
Reverse parallel resistance	R_P	V_R = 1 V, f = 100 MHz		50		KΩ
		V_R = 0 V, f = 1 GHz		10		
Forward resistance	rf	I_F = 1.5 mA, f = 100 MHz		22	40	Ω
		I_F = 10 mA, f = 100 MHz		4.5	7	
Charge carrier life time	τ_{rr}	I_F = 10 mA, I_R = 6 mA, measured at I_R = 3 mA , R_L = 100Ω		1600		ns
I-region width	W_I			130		μm

■ Marking

Marking	R