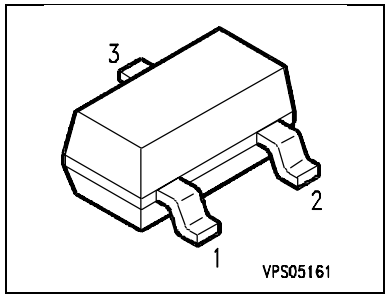
Silicon PIN Diode Array

- Surge protection device
- Two PIN diodes, series configuration
- Designed for surge overvoltage clamping in antiparallel connection



Type	Marking	Ordering Code (taped)	Pin Configuration 1	2	3	Package 1)
BAR66	PMs	Q62702-A1473	A1	C2	C1/A2	SOT-23

Maximum Ratings

Parameter	Symbol	BAR66	Unit
Reverse voltage	V_R	150	V
Forward current	I_F	200	mA
Forward current (t_p = 1µS)	I_F	20	A
Power dissipation $T_S \leq 25°C$ 1)	P_{tot}	250	mW
Operating temperature range	T_{op}	-55...+150	°C
Storage temperature range	T_{stg}	-55...+150	°C

Thermal Resistance

Junction-ambient 1)	$R_{th\ JA}$	≤ 450	K/W

1)Package mounted on alumina 15mm x 16.7mm x 0.7mm

Characteristics per Diode

at T_A = 25 °C, unless otherwise specified.

Parameter	Symbol	Value			Unit
		min.	typ.	max.	
Reverse current I_R = 5 µA	V_R	 150	 -	 -	V
Forward voltage I_F = 50 mA	V_F	 -	 0.95	 1.2	V
Diode capacitance V_R = 35 V, f=1M Hz V_R = 0 V , f=100 MHz	C_T	 - -	 0.4 0.35	 0.6 -	pF
Forward resistance I_F = 10 mA, f = 100 MHz	r_f	 -	 1.5	 -	Ω
Charge carrier lifetime I_F=10 mA, I_R = 6 mA, I_R = 3 mA	τ_L	 -	 0.7	 -	µs
Series inductance	L_S	-	2	-	nH

Dioden capacitance $C_T = f(V_R^*)$

f = 1 MHz