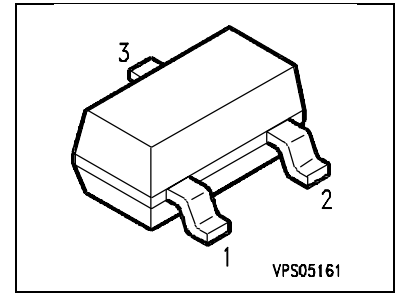


## Silicon PIN Diode Array

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



Type	Marking	Ordering Code (taped)	Pin Configuration			Package 1)
			1	2	3	
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 ( $t_p = 1\mu\text{S}$ )	$I_F$	20	A
Power dissipation $T_S \leq 25^\circ\text{C}$ 1)	$P_{\text{tot}}$	250	mW
Operating temperature range	$T_{\text{op}}$	-55...+150	$^\circ\text{C}$
Storage temperature range	$T_{\text{stg}}$	-55...+150	$^\circ\text{C}$

### Thermal Resistance

Junction-ambient 1)	$R_{\text{th JA}}$	$\leq 450$	K/W
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1) Package mounted on alumina 15mm x 16.7mm x 0.7mm

## Characteristics per Diode

at  $T_A = 25\text{ °C}$ , unless otherwise specified.

Parameter	Symbol	Value			Unit
		min.	typ.	max.	
Reverse current $I_R = 5\text{ }\mu\text{A}$	$V_R$	150	-	-	V
Forward voltage $I_F = 50\text{ mA}$	$V_F$	-	0.95	1.2	V
Diode capacitance $V_R = 35\text{ V}, f = 1\text{ MHz}$ $V_R = 0\text{ V}, f = 100\text{ MHz}$	$C_T$	-	0.4 0.35	0.6 -	pF
Forward resistance $I_F = 10\text{ mA}, f = 100\text{ MHz}$	$r_f$	-	1.5	-	$\Omega$
Charge carrier lifetime $I_F = 10\text{ mA}, I_R = 6\text{ mA}, I_R = 3\text{ mA}$	$\tau_L$	-	0.7	-	$\mu\text{s}$
Series inductance	$L_S$	-	2	-	nH

**Diode capacitance  $C_T = f(V_R)$**   
 $f = 1\text{ MHz}$

