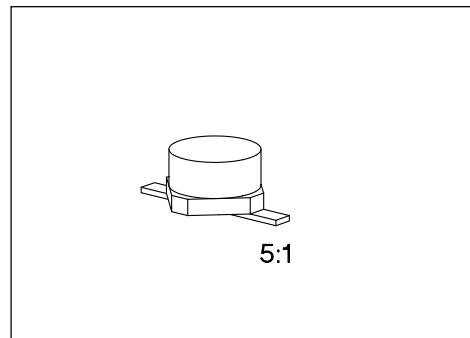


Silicon PIN Diode

BXY 42BA-7

- Fast switching



ESD: Electrostatic discharge sensitive device, observe handling precautions!

Type	Marking	Ordering Code	Pin Configuration	Package ¹⁾
BXY 42BA-7	27	Q62702-X160	2 o ————— 1 EHA07007	Cerec-X

Maximum Ratings

Parameter	Symbol	Values	Unit
Reverse voltage	V_R	50	V
Peak forward current, $t_p = 1 \mu\text{s}$	I_{FRM}	5	A
Total power dissipation	P_{tot}	350	mW
Junction temperature	T_j	175	°C
Storage temperature range	T_{stg}	- 55 ... + 150	
Operating temperature range	T_{op}	- 55 ... + 150	

Thermal Resistance

Junction – ambient ²⁾	$R_{th JA}$	≤ 450	K/W
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¹⁾ For detailed information see chapter Package Outlines.

²⁾ Package mounted on alumina 15 mm × 16.7 mm × 0.7 mm.

Electrical Characteristicsat $T_A = 25^\circ\text{C}$, unless otherwise specified.

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
Breakdown voltage $I_R = 10 \mu\text{A}$	$V_{(\text{BR})}$	50	—	—	V
Reverse current $V_R = 40 \text{ V}$	I_R	—	—	5	nA
Storage time $I_F = 10 \text{ mA}, V_R = 10 \text{ V}$	t_s	—	4	—	ns
Diode capacitance $V_R = 20 \text{ V}, f = 1 \text{ MHz}$	C_T	—	—	0.2	pF
Charge carrier life time $I_F = 10 \text{ mA}, I_R = 6 \text{ mA}$	τ_L	—	40	—	ns
Forward resistance $f = 100 \text{ MHz}, I_F = 10 \text{ mA}$	r_f	—	1.5	—	Ω