

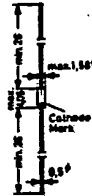


6 Lake Street
Lawrence, MA
USA 01841

Telephone (508) 681-0392 • TeleFax (508) 681-9135

BAV17... BAV21

Silicon Epitaxial Planar Diodes
for general purpose



These types are also available to specification
CECC 50.001.024

Glass Case JEDEC DO-35
54 A 2 according to DIN 41580

These diodes are delivered taped.
Details see "Taping"

Weight approx. 0.13 g
Dimensions in mm

Absolute Maximum Ratings

	Symbol	Value	Unit
Reverse Voltage	BAV17 BAV18 BAV19 BAV20 BAV21	V_R 25 60 120 200 250	V
Forward DC Current at $T_{amb} = 25^\circ\text{C}$	I_F	250 ¹⁾	mA
Rectified Current (Average) Half Wave Rectification with Resist. Load at $T_{amb} = 25^\circ\text{C}$ and $f \geq 50\text{ Hz}$	I_R	200 ¹⁾	mA
Repetitive Peak Forward Current at $f \geq 50\text{ Hz}$, $\theta = 180^\circ$, $T_{amb} = 25^\circ\text{C}$	I_{Fmax}	625 ¹⁾	mA
Surge Forward Current at $t < 1\text{ s}$, $T_J = 25^\circ\text{C}$	I_{FSM}	1	A
Power Dissipation at $T_{amb} = 25^\circ\text{C}$	P_{tot}	400 ¹⁾	mW
Junction Temperature	T_J	175	$^\circ\text{C}$
Storage Temperature Range	T_S	-65 to +175	$^\circ\text{C}$

¹⁾ Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case.

Characteristics at $T_J = 25^\circ\text{C}$

	Symbol	Min.	Typ.	Max.	Unit
Forward voltage at $I_F = 100\text{ mA}$	V_F	-	-	1	V
Leakage Current					
at $V_R = 20\text{ V}$	BAV17	-	-	100	nA
at $V_R = 20\text{ V}$, $T_J = 100^\circ\text{C}$	BAV17	-	-	15	μA
at $V_R = 60\text{ V}$	BAV18	-	-	100	nA
at $V_R = 60\text{ V}$, $T_J = 100^\circ\text{C}$	BAV18	-	-	15	μA
at $V_R = 100\text{ V}$	BAV19	-	-	100	nA
at $V_R = 100\text{ V}$, $T_J = 100^\circ\text{C}$	BAV19	-	-	15	μA
at $V_R = 150\text{ V}$	BAV20	-	-	100	nA
at $V_R = 150\text{ V}$, $T_J = 100^\circ\text{C}$	BAV20	-	-	15	μA
at $V_R = 200\text{ V}$	BAV21	-	-	100	nA
at $V_R = 200\text{ V}$, $T_J = 100^\circ\text{C}$	BAV21	-	-	15	μA
Dynamic Forward Resistance at $I_F = 10\text{ mA}$	r_F	-	5	-	Ω
Capacitance at $V_R = 0$, $f = 1\text{ MHz}$	C_{int}	-	1.5	-	pF
Reverse Recovery Time from $I_F = 30\text{ mA}$ through $I_R = 3\text{ mA}$; $R_L = 100\ \Omega$	t_r	-	-	50	ns
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	-	-	0.375 ¹⁾	K/mW

¹⁾ Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case.

BKC INTERNATIONAL ELECTRONICS, INC.
 6 LAKE STREET, LAWRENCE, MA 01841
 TEL NO. (508) 681-0392

TYPE
 S113

METALLURGIALLY BONDED, SILICON PLANAR DIODE, DOUBLE PLUG CONSTRUCTION

ABSOLUTE MAXIMUM RATINGS

PEAK REVERSE VOLTAGE	50V
RECURRENT PEAK FORWARD	600mA
STEADY STATE DC	100mA
MAX. AVERAGE FORWARD	200mA
POWER DISSIPATION	500mW
OPERATING TEMPERATURE	-65 TO +175 DEGREES CELSIUS
STORAGE TEMPERATURE	+200 DEGREES CELSIUS

CHARACTERISTICS

PARAMETER	VF	IR	PIV	C	Trr
COND	400uA	50V	5uA	0V	*
TA	25C	25C	25C	25C	25C
LIMITS					
MIN	.480V	----	50V	----	----
MAX	.530V	25nA		4Pf	6nS

*Trr CONDITIONS ARE IF=10mA, VR= 6V, RL= 100ohms, Trr @ 1mA

PACKAGE CONFIGURATION

GLASS CASE JEDEC DO-35
 (INCHES)

LEAD LENGTH	1.125 MAX
LEAD DIAMETER	.020 +/- .002
BODY LENGTH	.150 MAX.
BODY DIAMETER	.075 MAX.

MARKING

BLACK CATHODE BAND & BLACK DIGITAL PRINT

8004-9192

BKC INTERNATIONAL ELECTRONICS, INC.
 6 LAKE STREET, LAWRENCE, MA 01841
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ENGINEERING DATA SHEET

TYPE

1N4448

METALLURGICALLY BONDED, SILICON PLANAR DIODE, DOUBLE PLUG CONSTRUCTION

ABSOLUTE MAXIMUM RATINGS

PEAK REVERSE VOLTAGE	100V
RECURRENT PEAK FORWARD	150mA
POWER DISSIPATION	500mW
DERATING FACTOR	2.8mW/DEGREES CELSIUS
OPERATING TEMPERATURE	-65 TO +175 DEGREES CELSIUS
STORAGE TEMPERATURE	+200 DEGREES CELSIUS

ABSOLUTE MAXIMUM RATING

PARAMETER	VF	VF	IR	IR	IR	PIV	PIV
COND	5mA	100mA	20V	20V	20V	5uA	100uA
TA	25C	25C	25C	100C	150C	25C	25C
LIMITS							
MIN.	.620V	----	----	----	----	75V	100V
MAX.	.720V	1.0V	25nA	3uA	50uA	----	----
PARAMETER	C	Trr	Vfr				
COND	OV	*	**				
TA	25C	25C	25C				
LIMITS	4Pf	4nS	2.5V				

*Trr CONDITIONS ARE IF=10mA, VR= 6V, RL= 100ohms, Trr @ 1mA
 **Vfr CONDITIONS ARE IF=50mA PEAK SQUARE WAVE, PULSE WIDTH 0.1uS,
 5 TO 100 KC REP. RATE, GENERATOR Tr<30nS

PACKAGE CONFIGURATION

GLASS CASE JEDEC DO-35
 (INCHES)

LEAD LENGTH	1.125 MAX
LEAD DIAMETER	.020 +-.002
BODY LENGTH	.150 MAX.
BODY DIAMETER	.075 MAX.

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