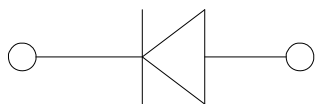
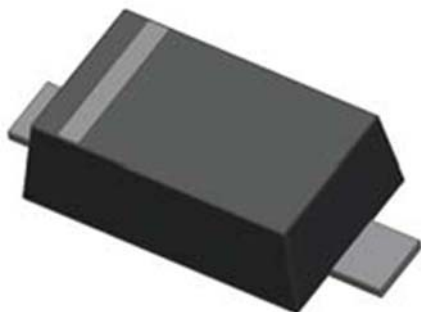


Zener Diodes



Features

- Moisture sensitivity level 1
- Zener voltage 47V~56V

Application

- Linear voltage regulator
- DC regulator
- Small-signal surge protection

Mechanical data

- **Package:** SOD-523
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

■ Maximum Ratings ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

Parameter	Symbol	Unit	Value
Forward voltage @ $I_F=10\text{mA}$	V_F	V	1
Power dissipation	P_D	mW	200
Maximum regulator current	I_{ZM}	mA	P_D / V_Z
Junction temperature	T_J	$^{\circ}\text{C}$	-55 to +150
Storage temperature	T_{STG}	$^{\circ}\text{C}$	-55 to +150



BZX584B47V THRU BZX584B56V

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

Type number	Device marking	V _Z @ I _{ZT} (V)			Z _{ZT} (Ω)		Z _{ZK} (Ω)		I _R (μA) @V _R	
		Min.	Typ.	Max.	I _{ZT} (mA)	Max.	I _{ZK} (mA)	Max.	Max	V _R (V)
BZX584B47V	16Y	46.06	47	47.94	5	110	1	375	0.1	35.0
BZX584B51V	17Y	50.0	51	52.0	2	180	0.5	400	0.05	35.7
BZX584B56V	18Y	54.9	56	57.1	2	200	0.5	425	0.05	39.2

■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	R _{θJ-A} ⁽¹⁾	°C/W	625
Thermal resistance, junction-to-case	R _{θJ-C} ⁽¹⁾	°C/W	500

Note:

(1) Thermal resistance from junction to ambient and from junction to case mounted on P.C.B. with 8mm*9mm copper pad areas



BZX584B47V THRU BZX584B56V

■ Characteristics

Fig 1: P_D - T_a Curve

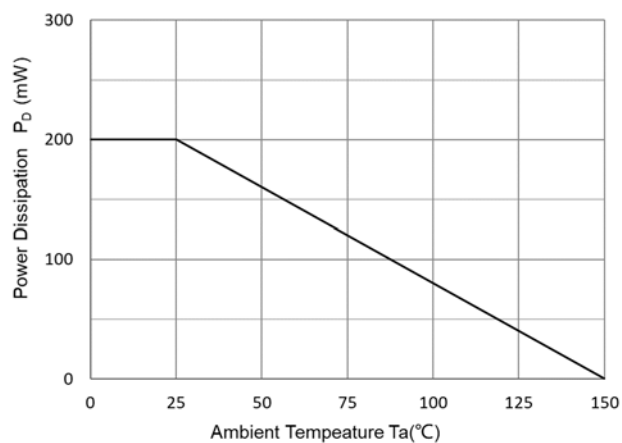
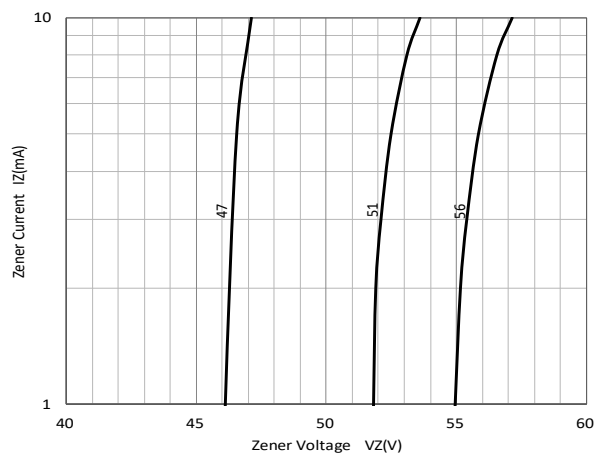


Fig 2: Zener Breakdown Characteristics



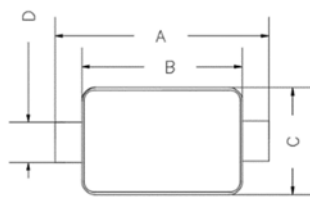


BZX584B47V THRU BZX584B56V

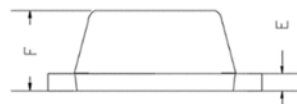
■ Ordering Information

Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
BZX584B47V THRU BZX584B56V	F2	Approximate 0.002	8000	80000	320000	7" reel
BZX584B47V THRU BZX584B56V	F3	Approximate 0.002	3000	30000	120000	7" reel

■ Outline Dimensions



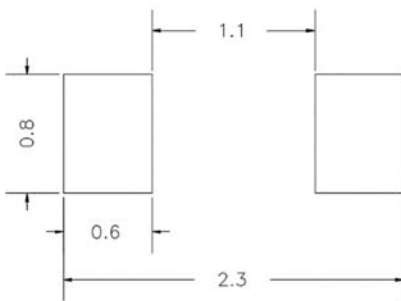
TOP VIEW



SIDE VIEW

DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.059	0.067	1.500	1.700
B	0.043	0.051	1.100	1.300
C	0.028	0.035	0.700	0.900
D	0.010	0.014	0.250	0.350
E	0.002	0.008	0.050	0.200
F	0.020	0.028	0.500	0.700

■ Suggested Pad Layout



UNIT: mm



BZX584B47V THRU BZX584B56V

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