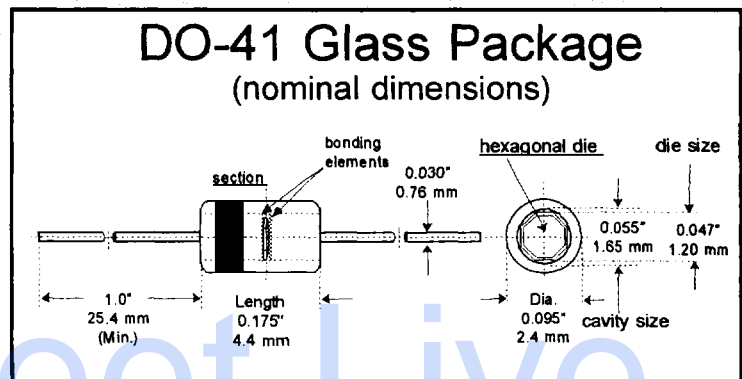


Use Advantage

- Competitive replacement for plastic DO-41 zener diodes.
- Able to function in hostile environments i.e. ABS brakes and under the hood.
- Used where cost, surge and performance are important.
- Functions as a low cost transient suppressor.
- May be used on ceramic boards along with high temperature IR solder reflow.

Features

- High surge capability
- Humidity proof glass
- Thermally matched system
- No thermal fatigue
- Six Sigma quality
- No applications restrictions
- BKC's Sigma Bond™ plating for problem free solderability
- LL-41 MELF (DO-213AB) SMD glass types available



Absolute Maximum Ratings	Symbol	Value	Unit
BKC Power Dissipation at 3/8" from the body, $T_L = 25\text{ }^\circ\text{C}$	$P_{tot}$	2.0	Watts
BKC Junction Temperature	$T_j$	175	$^\circ\text{C}$
Operating and Storage Temperature Range	$T_{Op \& St}$	-65 to +200	$^\circ\text{C}$
Exponential peak power surge for 1 mSec. @ 50% of $I_p$	$P_{pk}$	250	Watts

Characteristics at $T_{amb} = 25\text{ }^\circ\text{C}$	Symbol	Limit	Unit
BKC Power Derating at 3/8" from the body, $T_L = 25\text{ }^\circ\text{C}$	$P_{DR}$	13 (Max)	mW/ $^\circ\text{C}$
BKC Forward Voltage at $I_F = 1.0\text{ A}$	$V_F$	1.1 (Max)	Volts

For an LL-41 MELF DO-213AB surface mount package, add an M suffix to the part number..

DETAILED SPECIFICATIONS ON REVERSE

\*BKCST102\*

# 2.0 Watt Glass



# Zener Diodes

## ZY5,1 thru ZY200

## Detail Specifications

Type	Nominal Zener Voltage <sup>(1)</sup> (V <sub>Z</sub> ) @ I <sub>ZT</sub> Volts	Test Current I <sub>ZT</sub> mA	Maximum Zener Impedance (Z <sub>ZT</sub> ) @ I <sub>ZT</sub> Ohms	Maximum Reverse Voltage (V <sub>R</sub> ) @ I <sub>R</sub> =1.0μA Volts	Typical Temperature Coefficient @ I <sub>ZT</sub> mV/°C	Maximum Regulator Current (I <sub>ZM</sub> ) mA
ZY5,1■	5.1	100	5	-	-5	300
ZY5,6■	5.6	100	2	>1.5	+10	275
ZY6,2■	6.2	100	2	>1.5	+25	245
ZY6,8	6.8	100	2	>2	+35	200
ZY7,5	7.5	100	2	>2	+35	200
ZY8,2	8.2	100	2	>3.5	+55	180
ZY9,1	9.1	50	4	>3.5	+55	165
ZY10	10	50	4	>5	+70	145
ZY11	11	50	7	>5	+75	135
ZY12	12	50	7	>7	+75	120
ZY13	13	50	10	>7	+75	110
ZY15	15	50	10	>10	+75	98
ZY16	16	25	15	>10	+90	90
ZY18	18	25	15	>10	+90	80
ZY20	20	25	15	>10	+90	72
ZY22	22	25	15	>12	+90	66
ZY24	24	25	15	>12	+95	60
ZY27	27	25	15	>14	+95	53
ZY30	30	25	15	>14	+95	48
ZY33	33	25	15	>17	+95	44
ZY36	36	10	40	>17	+95	40
ZY39	39	10	40	>20	+100	37
ZY43	43	10	45	>20	+105	33
ZY47	47	10	45	>24	+105	30
ZY51	51	10	60	>24	+105	27
ZY56	56	10	60	>28	+105	25
ZY62	62	10	80	>28	+105	21
ZY68	68	10	80	>34	+105	20
ZY75	75	10	100	>34	+105	18
ZY82	82	10	100	>41	+105	16
ZY91	91	5	200	>41	+110	15
ZY100	100	5	200	>50	+110	13
ZY110	110	5	250	>50	+110	12
ZY120	120	5	250	>60	+110	11
ZY130	130	5	300	>60	+110	10
ZY150	150	5	300	>75	+110	9
ZY160	160	5	350	>75	+110	8.5
ZY180	180	5	350	>90	+110	8
ZY200	200	5	350	>90	+110	7.5

ZY family has voltage tolerances of ± 6 %. ■ suffix parts are under development.

For LL-41 MELF SMD (DO-213AB) glass packages, add an "M" suffix to the part number.

<sup>(1)</sup> Tested with pulses tp = 20mSecs.



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