



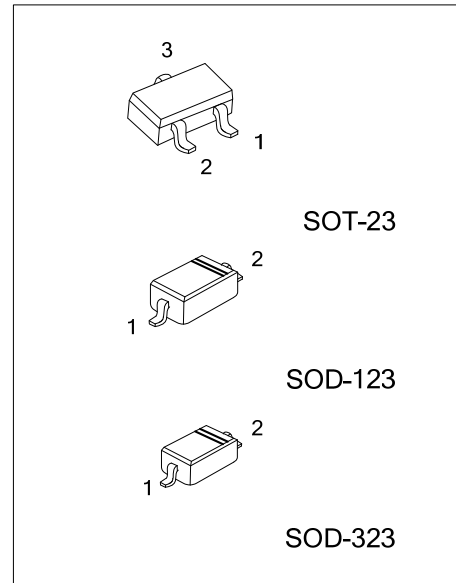
## ZD1.8 THRU ZD36

ZENER DIODE

### ZD1.8 THRU ZD36 ZENER DIODES

#### FEATURES

- \* Compact, 2-pin (SOD-323&SOD-123) and 3-pin(SOT-23) mini-mold types for high-density mounting.
- \* High demand voltage range (1.8V~36V) is manufactured on high-efficient non-wire bonding production line.



#### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
ZDxxL-AE3-R	ZDxxG-AE3-R	SOT-23	NC	A	C	Tape Reel
ZDxxL-CA2-R	ZDxxG-CA2-R	SOD-123	A	C	-	Tape Reel
ZDxxL-CB2-R	ZDxxG-CB2-R	SOD-323	A	C	-	Tape Reel

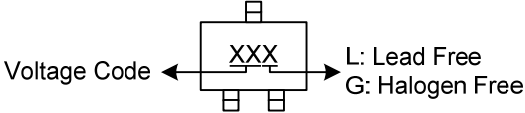
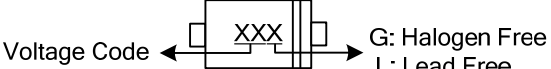
Note:1. Pin assignment: A: Anode C: Cathode NC: No Connection  
 2. xx: Zener Voltage, refer to Marking Information.

<p>ZDxxL-AE3-R</p> <p>(1)Packing Type          (2)Package Type          (3)Lead Free          (4)Zener Voltage</p>	<p>(1) R: Tape Reel          (2) AE3: SOT-23, CA2: SOD-123, CB2: SOD-323          (3) G: Halogen Free, L: Lead Free          (4) refer to Marking Information</p>
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# ZD1.8 THRU ZD36

**ZENER DIODE**

■ MARKING INFORMATION

PACKAGE	VOLTAGE CODE		MARKING
SOT-23	1.8	10	 <p>Voltage Code ← <b>XXX</b> → L: Lead Free G: Halogen Free</p>
	2.4	11	
	2.5	12	
	3.3	13	
	3.9	15	
	4.3	16	
	4.7	18	
	5.1	20	
	5.6	22	
SOD-123 SOD-323	6.0	24	 <p>Voltage Code ← <b>XXX</b> → G: Halogen Free L: Lead Free</p>
	6.2	25	
	6.8	27	
	7.5	30	
	8.2	33	
	9.1	36	

# ZD1.8 THRU ZD36

## ZENER DIODE

### ■ ABSOLUTE MAXIMUM RATINGS ( $T_A=25^{\circ}\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Power Dissipation ( $T_A=25^{\circ}\text{C}$ )	$P_D$	225	mW
Derating above $25^{\circ}\text{C}$		1.8	mW/ $^{\circ}\text{C}$
Junction Temperature	$T_J$	+150	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-40 ~ +150	$^{\circ}\text{C}$

Note Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

### ■ THERMAL DATA

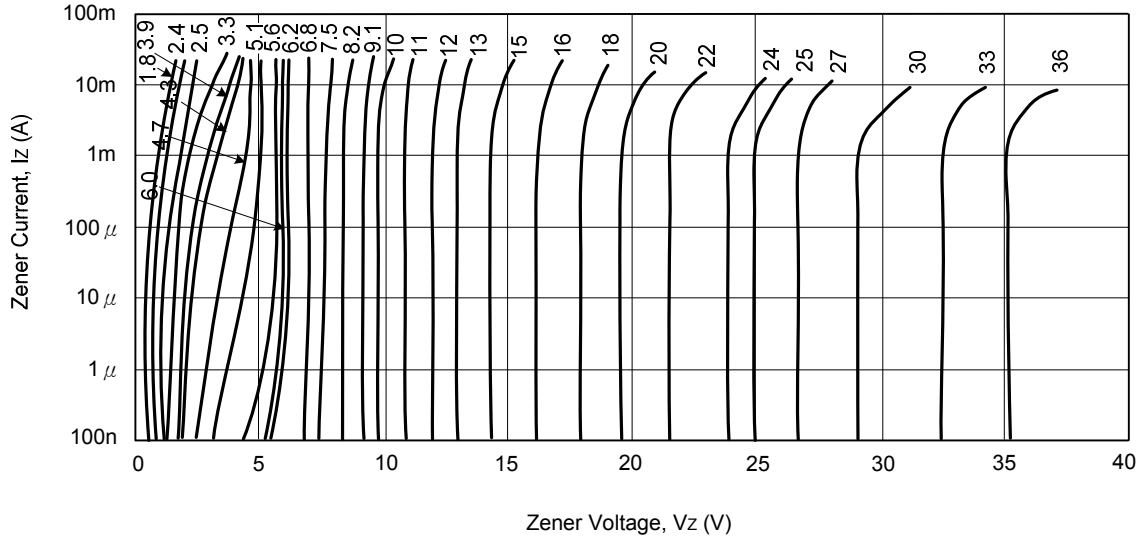
PARAMETER	SYMBOL	RATING	UNIT
Junction to Ambient	$\theta_{JA}$	417	$^{\circ}\text{C}/\text{W}$

### ■ ELECTRICAL CHARACTERISTICS ( $T_A=25^{\circ}\text{C}$ , unless otherwise specified)

( $V_F = 0.9\text{V}$  Max @  $I_F = 10\text{mA}$  for all types.)

Device	Marking Code	Test Current	Zener Voltage	$Z_{ZK}(\Omega)$		$Z_{ZT}(\Omega)$		$I_R(\mu\text{A})$	
		$I_{ZT}(\text{mA})$	$V_Z(\text{V})$	Max	$I_Z(\text{mA})$	Max	$I_Z(\text{mA})$	Max	@ $V_R(\text{V})$
ZD1.8	1.8	5	1.8±5%	2000	1.0	100	5	20.0	1.0
ZD2.4	2.4	5	2.4±5%	2000	1.0	100	5	20.0	1.0
ZD2.5	2.5	5	2.5±5%	2000	1.0	100	5	20.0	1.0
ZD3.3	3.3	5	3.3±5%	1000	1.0	100	5	10.0	1.0
ZD3.9	3.9	5	3.9±5%	1000	1.0	100	5	5.0	1.0
ZD4.3	4.3	5	4.3±5%	1000	1.0	100	5	5.0	1.0
ZD4.7	4.7	5	4.7±5%	800	0.5	100	5	2.0	1.0
ZD5.1	5.1	5	5.1±5%	500	0.5	80	5	2.0	1.5
ZD5.6	5.6	5	5.6±5%	200	0.5	60	5	1.0	2.5
ZD6.0	6.0	5	6.0±5%	100	0.5	60	5	1.0	2.5
ZD6.2	6.2	5	6.2±5%	100	0.5	60	5	1.0	3.0
ZD6.8	6.8	5	6.8±5%	60	0.5	40	5	0.5	3.5
ZD7.5	7.5	5	7.5±5%	60	0.5	30	5	0.5	4.0
ZD8.2	8.2	5	8.2±5%	60	0.5	30	5	0.5	5.0
ZD9.1	9.1	5	9.1±5%	60	0.5	30	5	0.5	6.0
ZD10	10	5	10±5%	60	0.5	30	5	0.1	7.0
ZD11	11	5	11±5%	60	0.5	30	5	0.1	8.0
ZD12	12	5	12±5%	80	0.5	30	5	0.1	9.0
ZD13	13	5	13±5%	80	0.5	37	5	0.1	10.0
ZD15	15	5	15±5%	80	0.5	42	5	0.1	11.0
ZD16	16	5	16±5%	80	0.5	50	5	0.1	12.0
ZD18	18	5	18±5%	80	0.5	65	5	0.1	13.0
ZD20	20	5	20±5%	100	0.5	85	5	0.1	15.0
ZD22	22	5	22±5%	100	0.5	100	5	0.1	17.0
ZD24	24	5	24±5%	120	0.5	120	5	0.1	19.0
ZD25	25	5	25±5%	130	0.5	130	5	0.1	19.0
ZD27	27	5	27±5%	150	0.5	150	5	0.1	21.0
ZD30	30	5	30±5%	200	0.5	200	5	0.1	23.0
ZD33	33	5	33±5%	250	0.5	250	5	0.1	25.0
ZD36	36	5	36±5%	300	0.5	300	5	0.1	27.0

■ TYPICAL CHARACTERISTIC CURVES



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