



ZD1.8 THRU ZD36

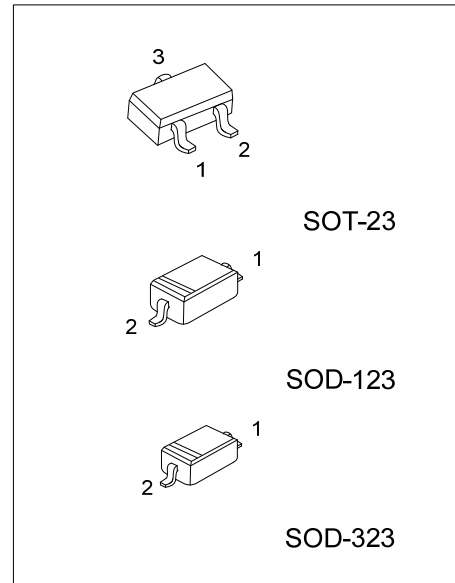
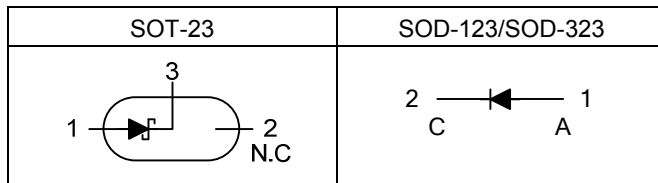
ZENER DIODE

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.

■ **SYMBOL**



■ **ORDERING INFORMATION**

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
ZDXXL-AE3-R	ZDXXG-AE3-R	SOT-23	A	NC	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

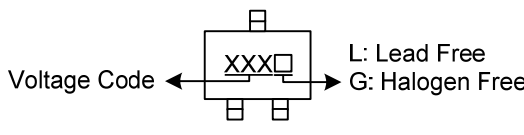
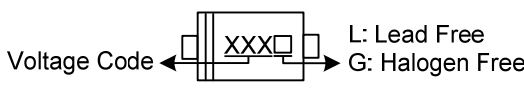
Notes: 1. Pin assignment: A: Anode C: Cathode NC: No Connection
 2. XX: Zener Voltage, refer to Marking Information.

<p>ZDXXG-AE3-R</p> <ul style="list-style-type: none"> (1) Packing Type (2) Package Type (3) Green Package (4) Zener Voltage 	<ul style="list-style-type: none"> (1) R: Tape Reel (2) AE3: SOT-23, CA2: SOD-123, CB2: SOD-323 (3) G: Halogen Free and Lead Free, L: Lead Free (4) refer to Marking Information
---	--

ZD1.8 THRU ZD36

ZENER DIODE

■ MARKING INFORMATION

PACKAGE	VOLTAGE CODE		MARKING
SOT-23	1.8	10	 <p>Voltage Code ← XXX → 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	
SOD-123 SOD-323	5.6	22	 <p>Voltage Code ← XXX → L: Lead Free G: Halogen Free</p>
	6.0	24	
	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°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

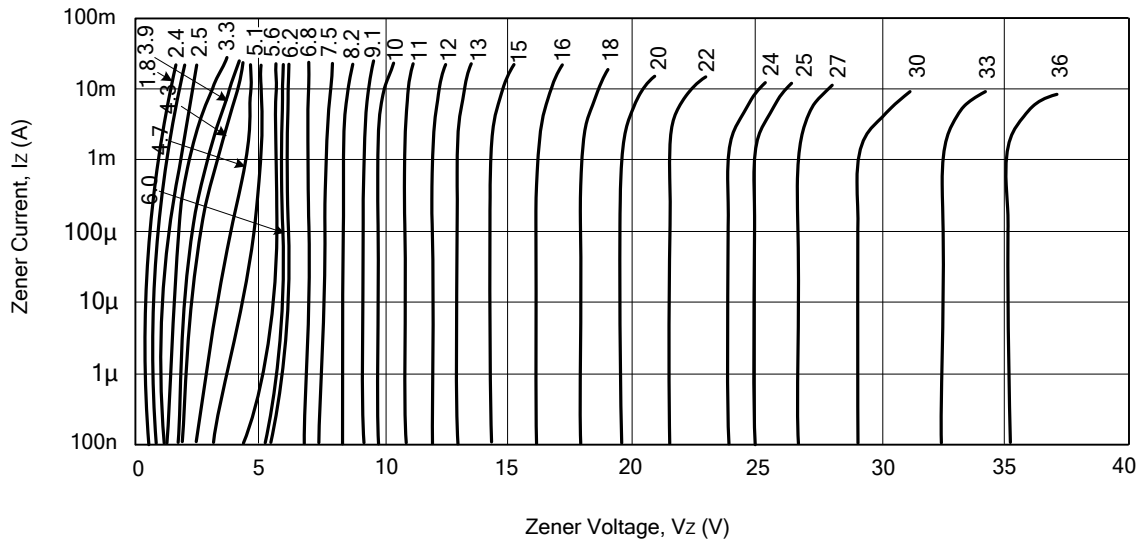
PARAMETER	SYMBOL	RATING	UNIT
Junction to Ambient	θ_{JA}	417	$^{\circ}\text{C}/\text{W}$

■ 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



UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. UTC reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice. This document supersedes and replaces all information supplied prior to the publication hereof.