



**UMMSZ52XXB**

Preliminary

**ZENER DIODE**

**SURFACE MOUNT SILICON  
ZENER DIODE**

■ DESCRIPTION

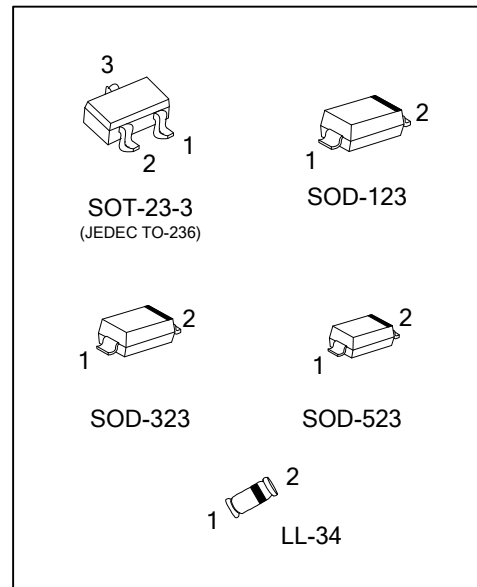
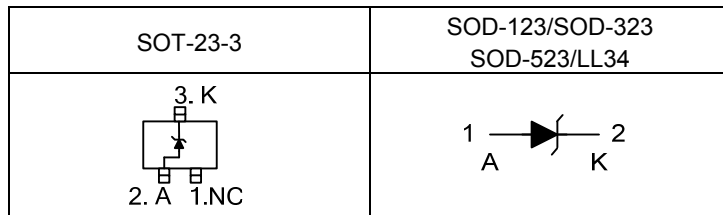
The UTC **UMMSZ52XXB** is a surface mount silicon zener diode, it uses UTC's advanced technology to provide customers with low reverse leakage current, etc.

The UTC **UMMSZ52XXB** is suitable for automated assembly processes.

■ FEATURES

\* Low reverse leakage current

■ SYMBOL



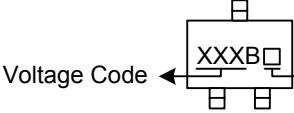
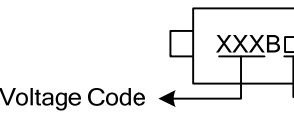
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UMMSZ52XXBL-AE2-R	UMMSZ52XXBG-AE2-R	SOT-23-3	NC	A	K	Tape Reel
UMMSZ52XXBL-CA2-R	UMMSZ52XXBG-CA2-R	SOD-123	A	K	-	Tape Reel
UMMSZ52XXBL-CB2-R	UMMSZ52XXBG-CB2-R	SOD-323	A	K	-	Tape Reel
UMMSZ52XXBL-CC2-R	UMMSZ52XXBG-CC2-R	SOD-523	A	K	-	Tape Reel
UMMSZ52XXBL-LL34-R	UMMSZ52XXBG-LL34-R	LL-34	A	K	-	Tape Reel

Note: Pin Assignment: A: Anode, K: Cathode

<p>UMMSZ52XXBL-AE2-R</p> <p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Lead Free</p> <p>(4) Output Voltage</p>	<p>(1) R: Tape Reel</p> <p>(2) AE2: SOT-23-3, CA2: SOD-123, CB2: SOD-323 CC2: SOD-523, LL34: LL-34</p> <p>(3) L: Lead Free, G: Halogen Free</p> <p>(4) refer to ELECTRICAL CHARACTERISTICS</p>
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■ MARKING INFORMATION

PACKAGE	VOLTAGE CODE	MARKING
SOT-23-3	3.9: 3.9V 5.1: 5.1V 6.2: 6.2V 8.2: 8.2V	 <p>Voltage Code ← XXXB → L: Lead Free G: Halogen Free</p>
SOD-123 SOD-323 SOD-523	15: 15V 18: 18V 20: 20V 22: 22V 33: 33V	 <p>Voltage Code ← XXXB → L: Lead Free G: Halogen Free</p>

### ■ ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	RATINGS	UNIT
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load (Note 2)	$I_{FSM}$	4.0	A
Power Dissipation at 75°C (Note 1)	SOD-123/LL-34	500	mW
	SOD-323	330	
	SOD-523	250	
	SOT-23-3	200	
Operating Junction Temperature	$T_J$	-55~+150	°C

Note: 1. 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.

2. Mounted on 5.0mm<sup>2</sup> (.013mm thick) land areas.

3. Measured on 8.3ms, single half sine-wave or equivalent square wave, duty cycle=4 pulses per minute maximum.

### ■ ELECTRICAL CHARACTERISTICS

( $V_F = 1.2V$  Max @  $I_F = 100mA$  for all types.)

Device	Marking Code	Nominal Zener Voltage			Zener Impedance				Reverse Leakage Current		Zener Current
		$V_Z @ I_{ZT}$ (V)			$Z_{ZT} @ I_{ZT}$		$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		$I_{ZM} @ T_A$
		MIN	TYP	MAX	Max (Ω)	$I_Z$ (mA)	Max (Ω)	$I_Z$ (mA)	Max (μA)	@ $V_R$ (V)	mA
UMMSZ5228B	3.9	3.71	3.9	4.1	23	20	1900	0.25	10	1.0	115
UMMSZ5231B	5.1	4.85	5.1	5.36	17	20	1600	0.25	5.0	2.0	89
UMMSZ5232B	5.6	5.32	5.6	5.88	11	20	1600	0.25	5.0	3.0	81
UMMSZ5234B	6.2	5.89	6.2	6.51	7	20	1000	0.25	5.0	4.0	73
UMMSZ5236B	7.5	7.13	7.5	7.88	6.0	20	500	0.25	3.0	6.0	61
UMMSZ5237B	8.2	7.79	8.2	8.61	8	20	500	0.25	3.0	6.0	55
UMMSZ5243B	13	12.35	13	13.65	13	9.5	600	0.25	1.0	9.9	35
UMMSZ5245B	15	14.25	15	15.75	16	8.5	600	0.25	0.5	11	30
UMMSZ5248B	18	17.1	18	18.9	21	7	600	0.25	0.1	14	25
UMMSZ5250B	20	19	20	21	25	6.2	600	0.25	0.1	15	23
UMMSZ5251B	22	20.9	22	23.1	29	5.6	600	0.25	0.1	17	21
UMMSZ5254B	27	25.65	27	28.35	41	5	600	0.25	0.1	21	16.8
UMMSZ5257B	33	31.35	33	34.65	58	3.8	700	0.25	0.1	25	13.8

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