

PACKAGING INFORMATION

Orderable part number	Status (1)	Material type (2)	Package Pins	Package qty Carrier	RoHS (3)	Lead finish/ Ball material (4)	MSL rating/ Peak reflow (5)	Op temp (°C)	Part marking (6)
REF3312AIDBZR	Active	Production	null (null)	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33A
REF3312AIDBZR.A	Active	Production	SOT-23 (DBZ) 3	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33A
REF3312AIDBZT	Active	Production	null (null)	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33A
REF3312AIDBZT.A	Active	Production	SOT-23 (DBZ) 3	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33A
REF3312AIDBZT1G4	Active	Production	null (null)	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33A
REF3312AIDBZT1G4.A	Active	Production	SOT-23 (DBZ) 3	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33A
REF3312AIDCKR	Active	Production	null (null)	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R12
REF3312AIDCKR.A	Active	Production	SC70 (DCK) 3	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R12
REF3312AIDCKR1G4	Active	Production	null (null)	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R12
REF3312AIDCKR1G4.A	Active	Production	SC70 (DCK) 3	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R12
REF3312AIDCKT	Active	Production	null (null)	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R12
REF3312AIDCKT.A	Active	Production	SC70 (DCK) 3	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R12
REF3312AIRSER	Active	Production	null (null)	5000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	5G
REF3312AIRSER.A	Active	Production	UQFN (RSE) 8	5000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	5G
REF3312AIRSERG4	Active	Production	null (null)	5000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	5G
REF3312AIRSERG4.A	Active	Production	UQFN (RSE) 8	5000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	5G
REF3312AIRSET	Active	Production	null (null)	250 SMALL T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	5G
REF3312AIRSET.A	Active	Production	UQFN (RSE) 8	250 SMALL T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	5G
REF3318AIDBZR	Active	Production	null (null)	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33B
REF3318AIDBZR.A	Active	Production	SOT-23 (DBZ) 3	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33B
REF3318AIDBZT	Active	Production	null (null)	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33B
REF3318AIDBZT.A	Active	Production	SOT-23 (DBZ) 3	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33B
REF3318AIDBZTG4	Active	Production	null (null)	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33B
REF3318AIDBZTG4.A	Active	Production	SOT-23 (DBZ) 3	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33B
REF3318AIDCKR	Active	Production	null (null)	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R18
REF3318AIDCKR.A	Active	Production	SC70 (DCK) 3	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R18
REF3318AIDCKRG4	Active	Production	null (null)	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R18
REF3318AIDCKRG4.A	Active	Production	SC70 (DCK) 3	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R18
REF3318AIDCKT	Active	Production	null (null)	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R18

Orderable part number	Status (1)	Material type (2)	Package Pins	Package qty Carrier	RoHS (3)	Lead finish/ Ball material (4)	MSL rating/ Peak reflow (5)	Op temp (°C)	Part marking (6)
REF3318AIDCKT.A	Active	Production	SC70 (DCK) 3	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R18
REF3320AIDBZR	Active	Production	null (null)	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33C
REF3320AIDBZR.A	Active	Production	SOT-23 (DBZ) 3	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33C
REF3320AIDBZT	Active	Production	null (null)	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33C
REF3320AIDBZT.A	Active	Production	SOT-23 (DBZ) 3	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33C
REF3320AIDBZT1G4	Active	Production	null (null)	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33C
REF3320AIDBZT1G4.A	Active	Production	SOT-23 (DBZ) 3	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33C
REF3320AIDCKR	Active	Production	null (null)	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R20
REF3320AIDCKR.A	Active	Production	SC70 (DCK) 3	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R20
REF3320AIDCKRG4	Active	Production	null (null)	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R20
REF3320AIDCKRG4.A	Active	Production	SC70 (DCK) 3	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R20
REF3320AIDCKT	Active	Production	null (null)	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R20
REF3320AIDCKT.A	Active	Production	SC70 (DCK) 3	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R20
REF3325AIDBZR	Active	Production	null (null)	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33D
REF3325AIDBZR.A	Active	Production	SOT-23 (DBZ) 3	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33D
REF3325AIDBZR1G4	Active	Production	null (null)	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33D
REF3325AIDBZR1G4.A	Active	Production	SOT-23 (DBZ) 3	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33D
REF3325AIDBZT	Active	Production	null (null)	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33D
REF3325AIDBZT.A	Active	Production	SOT-23 (DBZ) 3	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33D
REF3325AIDCKR	Active	Production	null (null)	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R25
REF3325AIDCKR.A	Active	Production	SC70 (DCK) 3	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R25
REF3325AIDCKR1G4	Active	Production	null (null)	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R25
REF3325AIDCKR1G4.A	Active	Production	SC70 (DCK) 3	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R25
REF3325AIDCKT	Active	Production	null (null)	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R25
REF3325AIDCKT.A	Active	Production	SC70 (DCK) 3	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R25
REF3325AIRSER	Active	Production	null (null)	5000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	GN
REF3325AIRSER.A	Active	Production	UQFN (RSE) 8	5000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	GN
REF3325AIRSERG4	Active	Production	null (null)	5000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	GN
REF3325AIRSERG4.A	Active	Production	UQFN (RSE) 8	5000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	GN
REF3330AIDBZR	Active	Production	null (null)	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33E
REF3330AIDBZR.A	Active	Production	SOT-23 (DBZ) 3	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33E

Orderable part number	Status (1)	Material type (2)	Package Pins	Package qty Carrier	RoHS (3)	Lead finish/ Ball material (4)	MSL rating/ Peak reflow (5)	Op temp (°C)	Part marking (6)
REF3330AIDBZRG4	Active	Production	null (null)	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33E
REF3330AIDBZRG4.A	Active	Production	SOT-23 (DBZ) 3	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33E
REF3330AIDBZT	Active	Production	null (null)	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33E
REF3330AIDBZT.A	Active	Production	SOT-23 (DBZ) 3	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33E
REF3330AIDCKR	Active	Production	null (null)	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R30
REF3330AIDCKR.A	Active	Production	SC70 (DCK) 3	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R30
REF3330AIDCKR1G4	Active	Production	null (null)	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R30
REF3330AIDCKR1G4.A	Active	Production	SC70 (DCK) 3	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R30
REF3330AIDCKT	Active	Production	null (null)	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R30
REF3330AIDCKT.A	Active	Production	SC70 (DCK) 3	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R30
REF3330AIRSER	Active	Production	null (null)	5000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	EN
REF3330AIRSER.A	Active	Production	UQFN (RSE) 8	5000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	EN
REF3330AIRSERG4	Active	Production	null (null)	5000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	EN
REF3330AIRSERG4.A	Active	Production	UQFN (RSE) 8	5000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	EN
REF3333AIDBZR	Active	Production	null (null)	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33F
REF3333AIDBZR.A	Active	Production	SOT-23 (DBZ) 3	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33F
REF3333AIDBZRG4	Active	Production	null (null)	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33F
REF3333AIDBZRG4.A	Active	Production	SOT-23 (DBZ) 3	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33F
REF3333AIDBZT	Active	Production	null (null)	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33F
REF3333AIDBZT.A	Active	Production	SOT-23 (DBZ) 3	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33F
REF3333AIDCKR	Active	Production	null (null)	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33
REF3333AIDCKR.A	Active	Production	SC70 (DCK) 3	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33
REF3333AIDCKRG4	Active	Production	null (null)	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33
REF3333AIDCKRG4.A	Active	Production	SC70 (DCK) 3	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33
REF3333AIDCKT	Active	Production	null (null)	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33
REF3333AIDCKT.A	Active	Production	SC70 (DCK) 3	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	R33

⁽¹⁾ **Status:** For more details on status, see our [product life cycle](#).

⁽²⁾ **Material type:** When designated, preproduction parts are prototypes/experimental devices, and are not yet approved or released for full production. Testing and final process, including without limitation quality assurance, reliability performance testing, and/or process qualification, may not yet be complete, and this item is subject to further changes or possible discontinuation. If available for ordering, purchases will be subject to an additional waiver at checkout, and are intended for early internal evaluation purposes only. These items are sold without warranties of any kind.

⁽³⁾ **RoHS values:** Yes, No, RoHS Exempt. See the [TI RoHS Statement](#) for additional information and value definition.

⁽⁴⁾ **Lead finish/Ball material:** Parts may have multiple material finish options. Finish options are separated by a vertical ruled line. Lead finish/Ball material values may wrap to two lines if the finish value exceeds the maximum column width.

⁽⁵⁾ **MSL rating/Peak reflow:** The moisture sensitivity level ratings and peak solder (reflow) temperatures. In the event that a part has multiple moisture sensitivity ratings, only the lowest level per JEDEC standards is shown. Refer to the shipping label for the actual reflow temperature that will be used to mount the part to the printed circuit board.

⁽⁶⁾ **Part marking:** There may be an additional marking, which relates to the logo, the lot trace code information, or the environmental category of the part.

Multiple part markings will be inside parentheses. Only one part marking contained in parentheses and separated by a "~" will appear on a part. If a line is indented then it is a continuation of the previous line and the two combined represent the entire part marking for that device.

Important Information and Disclaimer:The information provided on this page represents TI's knowledge and belief as of the date that it is provided. TI bases its knowledge and belief on information provided by third parties, and makes no representation or warranty as to the accuracy of such information. Efforts are underway to better integrate information from third parties. TI has taken and continues to take reasonable steps to provide representative and accurate information but may not have conducted destructive testing or chemical analysis on incoming materials and chemicals. TI and TI suppliers consider certain information to be proprietary, and thus CAS numbers and other limited information may not be available for release.

In no event shall TI's liability arising out of such information exceed the total purchase price of the TI part(s) at issue in this document sold by TI to Customer on an annual basis.