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* [Overview](http://docs.google.com/overview-summary.html)
* [Package](http://docs.google.com/package-summary.html)
* Class
* [Use](http://docs.google.com/class-use/SortedBag.html)
* [Tree](http://docs.google.com/package-tree.html)
* [Deprecated](http://docs.google.com/deprecated-list.html)
* [Index](http://docs.google.com/index-all.html)
* [Help](http://docs.google.com/help-doc.html)
* [Prev Class](http://docs.google.com/org/apache/commons/collections4/SetValuedMap.html)
* [Next Class](http://docs.google.com/org/apache/commons/collections4/SortedBidiMap.html)
* [Frames](http://docs.google.com/index.html?org/apache/commons/collections4/SortedBag.html)
* [No Frames](http://docs.google.com/SortedBag.html)
* [All Classes](http://docs.google.com/allclasses-noframe.html)
* Summary:
* Nested |
* Field |
* Constr |
* [Method](#3znysh7)
* Detail:
* Field |
* Constr |
* [Method](#1t3h5sf)

org.apache.commons.collections4

## Interface SortedBag<E>

* Type Parameters: E - the type of elements in this bag All Superinterfaces: [Bag](http://docs.google.com/org/apache/commons/collections4/Bag.html)<E>, [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<E>, [Iterable](https://docs.oracle.com/javase/7/docs/api/java/lang/Iterable.html?is-external=true)<E> All Known Implementing Classes: [AbstractSortedBagDecorator](http://docs.google.com/org/apache/commons/collections4/bag/AbstractSortedBagDecorator.html), [CollectionSortedBag](http://docs.google.com/org/apache/commons/collections4/bag/CollectionSortedBag.html), [PredicatedSortedBag](http://docs.google.com/org/apache/commons/collections4/bag/PredicatedSortedBag.html), [SynchronizedSortedBag](http://docs.google.com/org/apache/commons/collections4/bag/SynchronizedSortedBag.html), [TransformedSortedBag](http://docs.google.com/org/apache/commons/collections4/bag/TransformedSortedBag.html), [TreeBag](http://docs.google.com/org/apache/commons/collections4/bag/TreeBag.html), [UnmodifiableSortedBag](http://docs.google.com/org/apache/commons/collections4/bag/UnmodifiableSortedBag.html)  
    
  public interface SortedBag<E>  
  extends [Bag](http://docs.google.com/org/apache/commons/collections4/Bag.html)<E>  
  Defines a type of Bag that maintains a sorted order among its unique representative members.Since: 2.0

### Method SummaryAll Methods Instance Methods Abstract Methods

|  |  |
| --- | --- |
| * + Modifier and Type | * + Method and Description |
| * + [Comparator](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true)<? super [E](http://docs.google.com/org/apache/commons/collections4/SortedBag.html)> | * + [comparator](http://docs.google.com/org/apache/commons/collections4/SortedBag.html#comparator--)() Returns the comparator associated with this sorted set, or null if it uses its elements' natural ordering. |
| * + [E](http://docs.google.com/org/apache/commons/collections4/SortedBag.html) | * + [first](http://docs.google.com/org/apache/commons/collections4/SortedBag.html#first--)() Returns the first (lowest) member. |
| * + [E](http://docs.google.com/org/apache/commons/collections4/SortedBag.html) | * + [last](http://docs.google.com/org/apache/commons/collections4/SortedBag.html#last--)() Returns the last (highest) member. |

### Methods inherited from interface org.apache.commons.collections4.[**Bag**](http://docs.google.com/org/apache/commons/collections4/Bag.html)[add](http://docs.google.com/org/apache/commons/collections4/Bag.html#add-E-), [add](http://docs.google.com/org/apache/commons/collections4/Bag.html#add-E-int-), [containsAll](http://docs.google.com/org/apache/commons/collections4/Bag.html#containsAll-java.util.Collection-), [getCount](http://docs.google.com/org/apache/commons/collections4/Bag.html#getCount-java.lang.Object-), [iterator](http://docs.google.com/org/apache/commons/collections4/Bag.html#iterator--), [remove](http://docs.google.com/org/apache/commons/collections4/Bag.html#remove-java.lang.Object-), [remove](http://docs.google.com/org/apache/commons/collections4/Bag.html#remove-java.lang.Object-int-), [removeAll](http://docs.google.com/org/apache/commons/collections4/Bag.html#removeAll-java.util.Collection-), [retainAll](http://docs.google.com/org/apache/commons/collections4/Bag.html#retainAll-java.util.Collection-), [size](http://docs.google.com/org/apache/commons/collections4/Bag.html#size--), [uniqueSet](http://docs.google.com/org/apache/commons/collections4/Bag.html#uniqueSet--)

### Methods inherited from interface java.util.[**Collection**](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)[addAll](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#addAll-java.util.Collection-), [clear](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#clear--), [contains](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#contains-java.lang.Object-), [equals](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#equals-java.lang.Object-), [hashCode](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#hashCode--), [isEmpty](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#isEmpty--), [parallelStream](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#parallelStream--), [removeIf](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#removeIf-java.util.function.Predicate-), [spliterator](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#spliterator--), [stream](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#stream--), [toArray](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#toArray--), [toArray](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#toArray-T:A-)

### Methods inherited from interface java.lang.[**Iterable**](https://docs.oracle.com/javase/7/docs/api/java/lang/Iterable.html?is-external=true)[forEach](https://docs.oracle.com/javase/7/docs/api/java/lang/Iterable.html?is-external=true#forEach-java.util.function.Consumer-)

### Method Detail

#### comparator [Comparator](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true)<? super [E](http://docs.google.com/org/apache/commons/collections4/SortedBag.html)> comparator() Returns the comparator associated with this sorted set, or null if it uses its elements' natural ordering.Returns: the comparator in use, or null if natural ordering

#### first [E](http://docs.google.com/org/apache/commons/collections4/SortedBag.html) first() Returns the first (lowest) member.Returns: the first element in the sorted bag

#### last [E](http://docs.google.com/org/apache/commons/collections4/SortedBag.html) last() Returns the last (highest) member.Returns: the last element in the sorted bag

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* Class
* [Use](http://docs.google.com/class-use/SortedBag.html)
* [Tree](http://docs.google.com/package-tree.html)
* [Deprecated](http://docs.google.com/deprecated-list.html)
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* [Help](http://docs.google.com/help-doc.html)
* [Prev Class](http://docs.google.com/org/apache/commons/collections4/SetValuedMap.html)
* [Next Class](http://docs.google.com/org/apache/commons/collections4/SortedBidiMap.html)
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* [All Classes](http://docs.google.com/allclasses-noframe.html)
* Summary:
* Nested |
* Field |
* Constr |
* [Method](#3znysh7)
* Detail:
* Field |
* Constr |
* [Method](#1t3h5sf)

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