In [6]:

```
import pandas as pd
import numpy as np
import seaborn as sns
```

In [7]:

```
dataset = pd.read_excel('QVI_transaction_data.xlsx')
```

In [8]:

```
dataset.head()
```

Out[8]:

	DATE	STORE_NBR	LYLTY_CARD_NBR	TXN_ID	PROD_NBR	PROD_NAME	PROD_QTY	TOT_SALI
0	43390	1	1000	1	5	Natural Chip Compny SeaSalt175g	2	6
1	43599	1	1307	348	66	CCs Nacho Cheese 175g	3	6
2	43605	1	1343	383	61	Smiths Crinkle Cut Chips Chicken 170g	2	2
3	43329	2	2373	974	69	Smiths Chip Thinly S/Cream&Onion 175g	5	15
4	43330	2	2426	1038	108	Kettle Tortilla ChpsHny&Jlpno Chili 150g	3	13

SUMMARIZATION

In [37]:

```
dataset.describe()
```

Out[37]:

	DATE	STORE_NBR	LYLTY_CARD_NBR	TXN_ID	PROD_NBR	PROD_QTY
count	264836.000000	264836.00000	2.648360e+05	2.648360e+05	264836.000000	264836.000000
mean	43464.036260	135.08011	1.355495e+05	1.351583e+05	56.583157	1.907309
std	105.389282	76.78418	8.057998e+04	7.813303e+04	32.826638	0.643654
min	43282.000000	1.00000	1.000000e+03	1.000000e+00	1.000000	1.000000
25%	43373.000000	70.00000	7.002100e+04	6.760150e+04	28.000000	2.000000
50%	43464.000000	130.00000	1.303575e+05	1.351375e+05	56.000000	2.000000
75%	43555.000000	203.00000	2.030942e+05	2.027012e+05	85.000000	2.000000
max	43646.000000	272.00000	2.373711e+06	2.415841e+06	114.000000	200.000000

In [38]:

```
dataset.isnull().sum()
```

Out[38]:

```
DATE             0
STORE_NBR        0
LYLTY_CARD_NBR   0
TXN_ID           0
PROD_NBR         0
PROD_NAME        0
PROD_QTY         0
TOT_SALES        0
dtype: int64
```

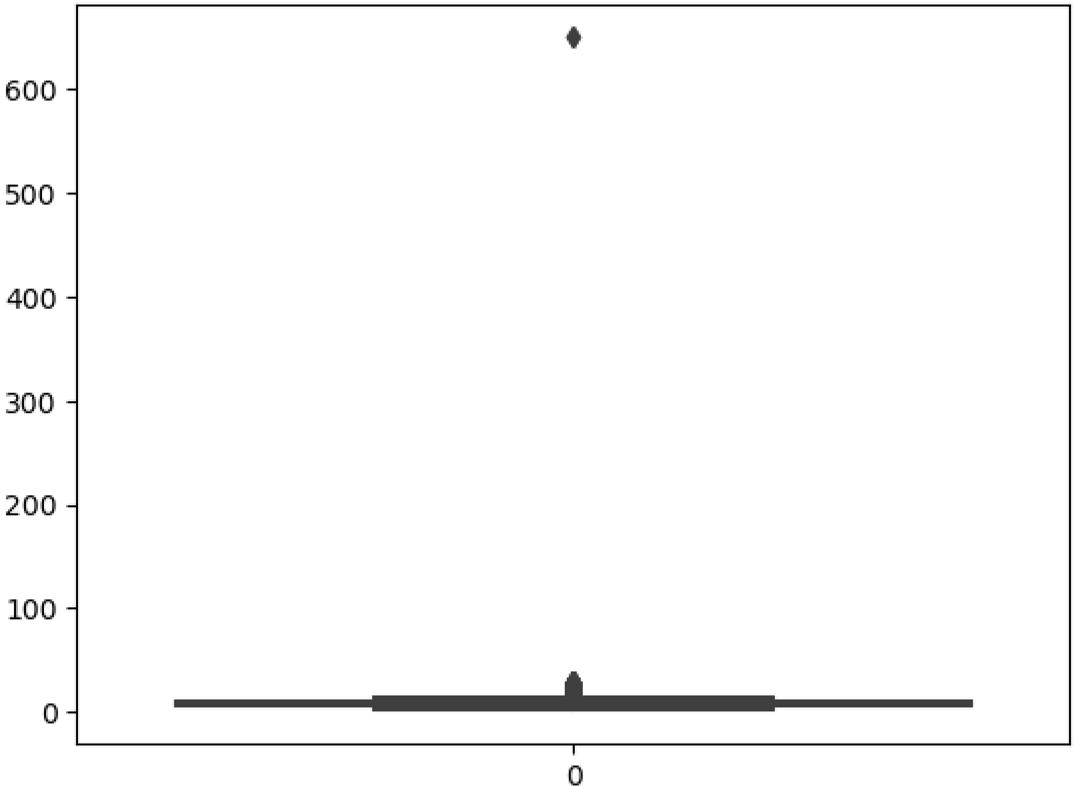
CHEKCING FOR OUTLIERS

In [11]:

```
sns.boxplot(dataset.TOT_SALES)
```

Out[11]:

```
<Axes: >
```

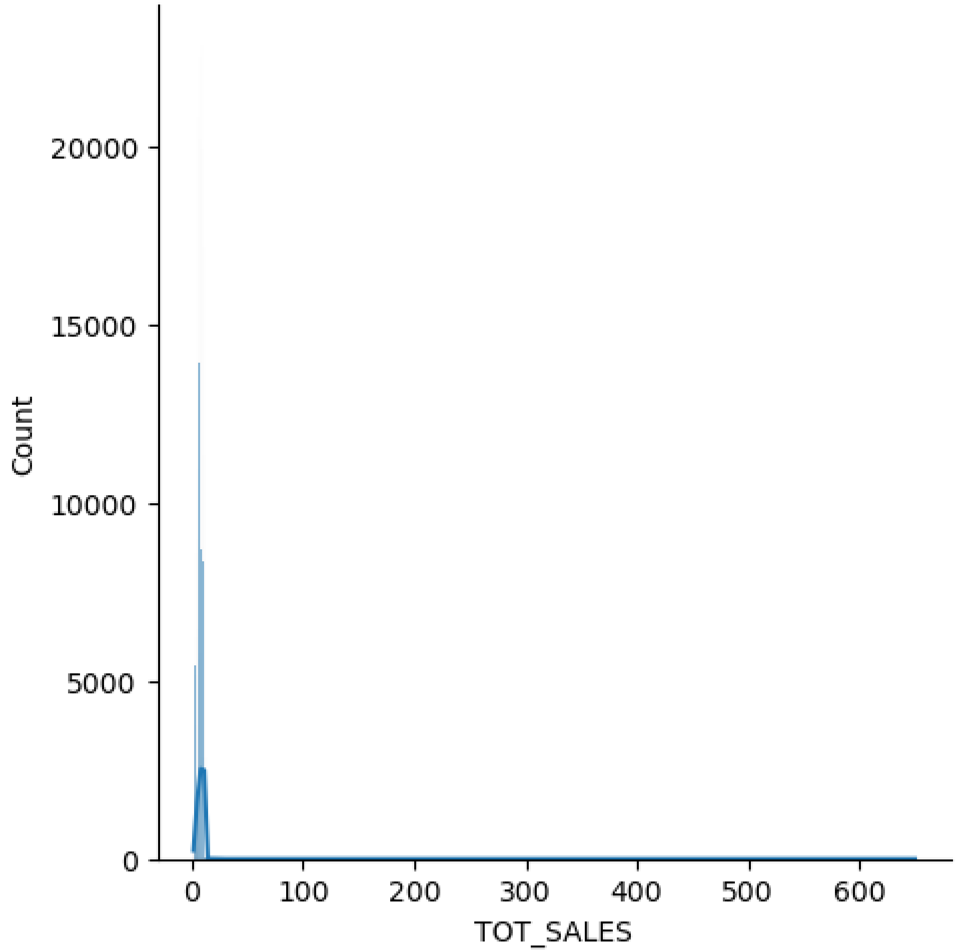


In [22]:

```
sns.displot(dataset.TOT_SALES, kde = True)
```

Out[22]:

```
<seaborn.axisgrid.FacetGrid at 0x20d34067fa0>
```



In [23]:
```
numericdata= dataset.select_dtypes(['float', 'int'])
```

In [24]:
```
numericdata.head()
```

Out[24]:

	DATE	STORE_NBR	LYLTY_CARD_NBR	TXN_ID	PROD_NBR	PROD_QTY	TOT_SALES
0	43390	1	1000	1	5	2	6.0
1	43599	1	1307	348	66	3	6.3
2	43605	1	1343	383	61	2	2.9
3	43329	2	2373	974	69	5	15.0
4	43330	2	2426	1038	108	3	13.8

REMOVING OUTLIERS

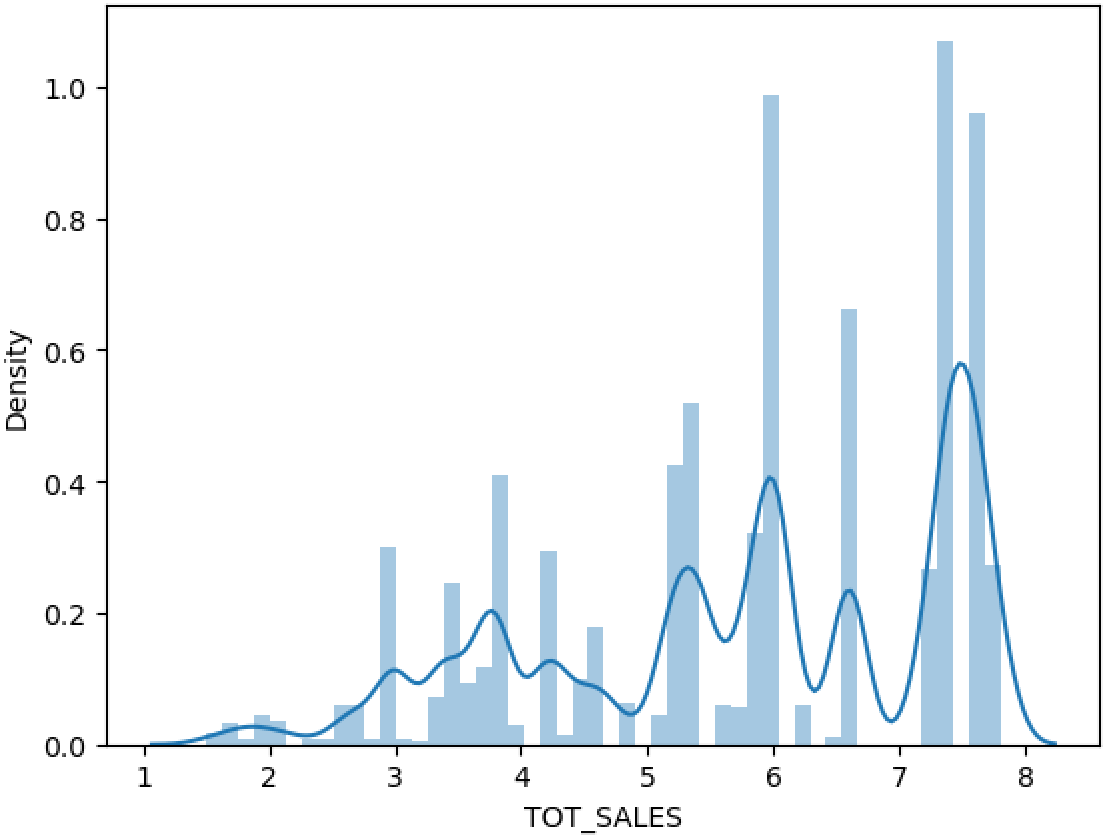
In [27]:
```
x = numericdata[numericdata['TOT_SALES']<8.000]
```

In [31]:
```
sns.distplot(x.TOT_SALES, kde = True)
```

```
C:\Users\98pra\AppData\Local\Temp\ipykernel_12856\372233009.py:1: UserWarning:

`distplot` is a deprecated function and will be removed in seaborn v0.14.0.

Please adapt your code to use either `displot` (a figure-level function with
similar flexibility) or `histplot` (an axes-level function for histograms).

For a guide to updating your code to use the new functions, please see
https://gist.github.com/mwaskom/de44147ed2974457ad6372750bbe5751

  sns.distplot(x.TOT_SALES, kde = True)
```

Out[31]:

```
<Axes: xlabel='TOT_SALES', ylabel='Density'>
```

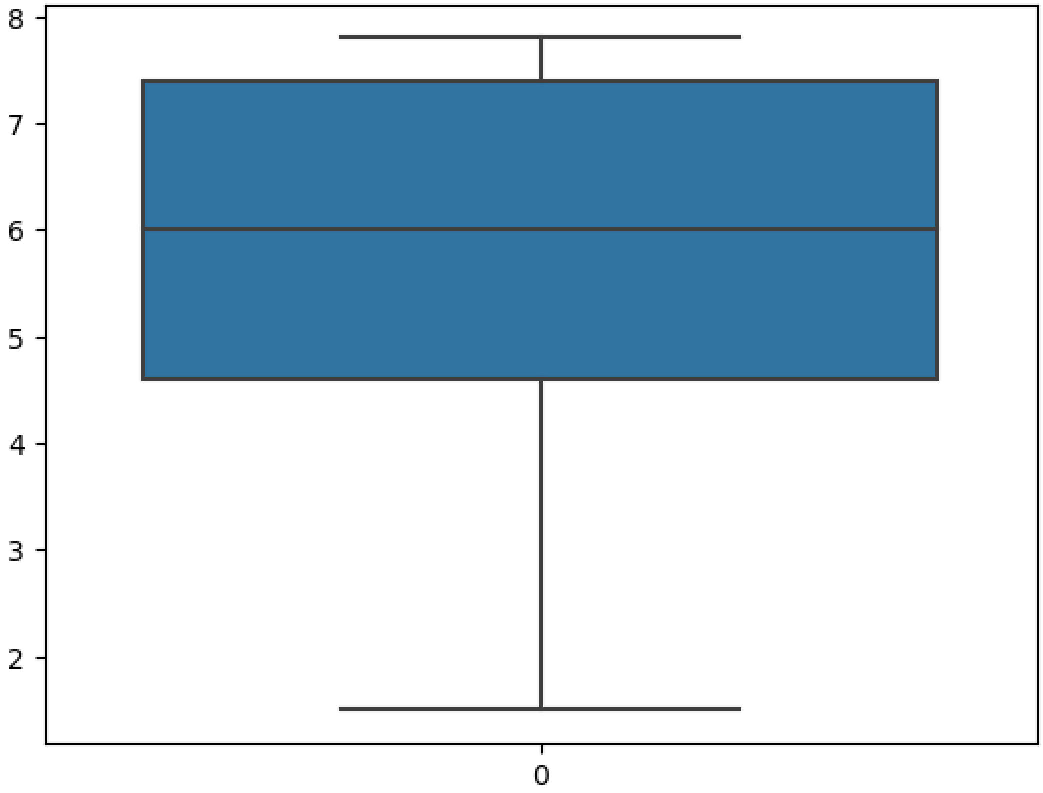


In [32]:

```
sns.boxplot(x.TOT_SALES)
```

Out[32]:

```
<Axes: >
```



CHECKING DATA FORMATS

In [40]:

```
dataset.dtypes
```

Out[40]:

```
DATE                  int64
STORE_NBR             int64
LYLTY_CARD_NBR        int64
TXN_ID                int64
PROD_NBR              int64
PROD_NAME            object
PROD_QTY              int64
TOT_SALES           float64
dtype: object
```

In [ ]: