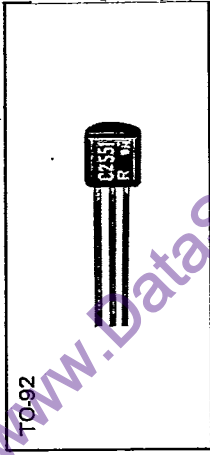


9097250 TOSHIBA (DISCRETE/OPTO)

67C 09143 D T-27-01

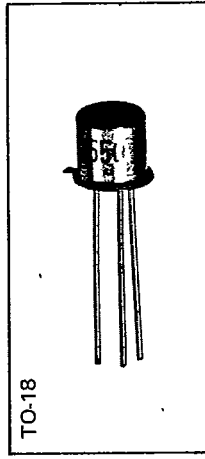


7. INDUSTRIAL APPLICATIONS TO-92

| Type No. | V _{CEO} (V) | I _C (mA) | P _C (mW) | h _{FE} | | V _{CE(sat)} MAX. | | | f _T TYP. | | Cob TYP. | | SW Time TYP. | | | |
|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|---------------------------|------------------------|------------------------|-------------------------|------------------------|------------------------|----------------|------------------------|-------------|--------------|------------|
| | | | | V _{CE} (V) | I _C (mA) | V _{CE} (V) | I _C (mA) | I _B (mA) | f _T (MHz) | V _{CE} (V) | I _C (mA) | f=1MHz (pF) | V _{CB} (V) | ton (ns) | tstg (ns) | tf (ns) |
| NPN | | | | | | | | | | | | | | | | |
| 2SC752 [Ⓞ] TM | 15 | 200 | 400 | 40~240 | 1 | 10 | 0.3 | 20 | 1 | 400 | 10 | 4 | 10 | 70 | 15 | 30 |
| 2SC367 [Ⓞ] TM | 30 | 400 | 400 | 70~240 | 1 | 100 | 0.25 | 100 | 10 | 250/180 | 10 | 10 | 10 | 40 | 250 | 30 |
| 2SC509 [Ⓞ] TM | 30 | 800 | 600 | 70~240 | 2 | 50 | 0.5/0.8 | 500 | 20 | 100/140 | 10 | 11/22 | 10 | 60/50 | 400 | 50/40 |
| 2SC372 [Ⓞ] TM | 50 | 150 | 400 | 70~240 | 1 | 10 | 0.25/0.4 | 100 | 10 | 200 | 10 | 2/5 | 10 | 50/30 | 250 | 30 |
| 2SC373 [Ⓞ] TM | 50 | 150 | 400 | 200~400 | 1 | 10 | 0.25 | 100 | 10 | 200 | 10 | 2 | 10 | 50 | 250 | 30 |
| 2SC1000 [Ⓞ] TM | 50 | 150 | 400 | 200~700 | 6 | 2 | — | — | — | 80 | 6/10 | 6 | 6/10 | — | — | — |
| 2SC980 [Ⓞ] TM | 50 | 100 | 400 | 70~240 | 1 | 10 | 0.3 | 10 | 1 | 250 | 10 | 3 | 10 | 25 | 400 | 30 |
| 2SC980A [Ⓞ] TM | 70 | 100 | 400 | 120~240 | 1 | 10 | 0.3 | 10 | 1 | 250 | 10 | 3 | 10 | 25 | 400 | 30 |
| 2SC780A [Ⓞ] TM | 150 | 30 | 400 | 70~240 | 3 | 10 | 0.5/1.0 | 10 | 1 | 100 | 10 | 2/3 | 10 | 0.3μs | 3μs | 0.4μs |
| 2SC2551 | 300 | 100 | 400 | 30~150 | 10 | 20 | 0.5 | 20 | 2 | 80/60 | 10 | 3/6 | 20 | — | — | — |
| 2SC982TM | 40 | 300 | 400 | 1000MIN. | 2 | 100 | 1.3 | 300 | 0.3 | — | — | — | — | — | — | — |

Application

High Speed SW
 High Current SW
 High Current SW
 General Purpose
 General Purpose
 Low Noise
 High Speed SW
 High Speed SW
 High Voltage SW
 High Voltage SW
 Darlington



INDUSTRIAL APPLICATIONS TO-18

| Type No. | V _{CEO} (V) | I _C (mA) | P _C (mW) | h _{FE} | | V _{CE(sat)} MAX. | | | f _T TYP. | | Cob TYP. | | SW Time TYP. | | | |
|----------|-------------------------|------------------------|------------------------|------------------------|------------------------|---------------------------|------------------------|------------------------|-------------------------|------------------------|------------------------|----------------|------------------------|-------------|--------------|------------|
| | | | | V _{CE} (V) | I _C (mA) | V _{CE} (V) | I _C (mA) | I _B (mA) | f _T (MHz) | V _{CE} (V) | I _C (mA) | f=1MHz (pF) | V _{CB} (V) | ton (ns) | tstg (ns) | tf (ns) |
| NPN | | | | | | | | | | | | | | | | |
| 2SC395A | 12 | 500 | 300 | 70~200 | 1 | 10 | 0.25 | 10 | 1 | 400 | 10 | 4 | 10 | 20 | 25 | 15 |
| 2SC400 | 20 | 100 | 250 | 60~350/200 | 1 | 10 | 0.4 | 10 | 1 | 300/250 | 10 | 4/5 | 10 | 25 | 300/400 | 30/40 |
| 2SC970 | 50/40 | 100 | 300/250 | 70/60~240/200 | 1 | 10 | 0.3/0.4 | 10 | 1 | 250 | 10 | 3/5 | 10 | 25 | 400 | 30/40 |
| 2SC1380A | 50 | 100 | 200 | 200~700 | 6 | 2 | — | — | — | 80 | 6 | 6 | 6 | — | — | — |
| 2SC2550 | 50 | 200 | 300 | 70~400 | 1 | 10 | 0.5/0.3 | 200/100 | 20/10 | 250 | 10 | 3/4 | 10 | 100/30 | 400 | 50/30 |
| 2SC979A | 70 | 100 | 300 | 70~140 | 1 | 10 | 0.3 | 10 | 1 | 250 | 10 | 3 | 10 | 25 | 400 | 30 |

Application

Ultra High Speed SW
 High Speed SW
 General Purpose
 Low Noise
 General Purpose
 High Speed SW