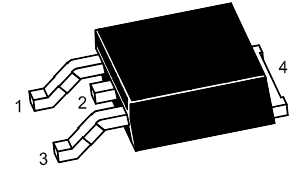


# 2SA1718R

## PNP Silicon Epitaxial Planar Transistor

for power switching and amplifier applications



1. Base 2. Collector 3. Emitter 4. Collector  
TO-252 Plastic Package

### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

| Parameter                                                                 | Symbol            | Value         | Unit             |
|---------------------------------------------------------------------------|-------------------|---------------|------------------|
| Collector Base Voltage                                                    | $-V_{\text{CBO}}$ | 50            | V                |
| Collector Emitter Voltage                                                 | $-V_{\text{CEO}}$ | 50            | V                |
| Emitter Base Voltage                                                      | $-V_{\text{EBO}}$ | 5             | V                |
| Collector Current                                                         | $-I_{\text{C}}$   | 2             | A                |
| Power Dissipation<br>$T_a = 25^\circ\text{C}$<br>$T_c = 25^\circ\text{C}$ | $P_{\text{tot}}$  | 1<br>10       | W                |
| Junction Temperature                                                      | $T_j$             | 150           | $^\circ\text{C}$ |
| Storage Temperature Range                                                 | $T_{\text{stg}}$  | - 55 to + 150 | $^\circ\text{C}$ |

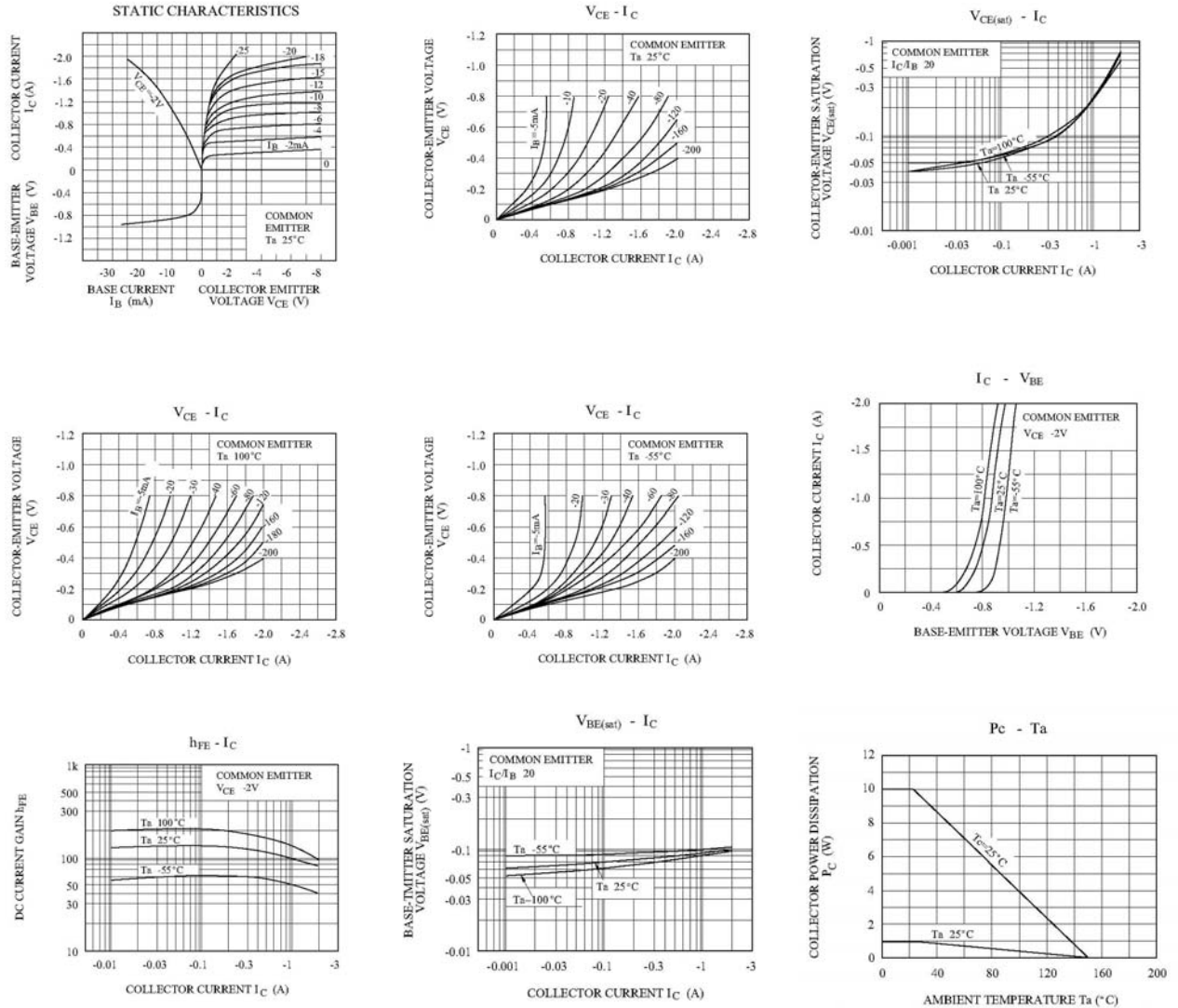
### Characteristics at $T_a = 25^\circ\text{C}$

| Parameter                                                                                                                                                         | Symbol                                                | Min.            | Typ.        | Max.            | Unit          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-----------------|-------------|-----------------|---------------|
| DC Current Gain<br>at $-V_{\text{CE}} = 2\text{ V}$ , $-I_{\text{C}} = 0.5\text{ A}$<br>Current Gain Group O<br>Y                                                 | $h_{\text{FE}}$<br>$h_{\text{FE}}$<br>$h_{\text{FE}}$ | 70<br>120<br>40 | -<br>-<br>- | 140<br>240<br>- | -<br>-<br>-   |
| Collector Base Cutoff Current<br>at $-V_{\text{CB}} = 50\text{ V}$                                                                                                | $-I_{\text{CBO}}$                                     | -               | -           | 0.1             | $\mu\text{A}$ |
| Emitter Base Cutoff Current<br>at $-V_{\text{EB}} = 5\text{ V}$                                                                                                   | $-I_{\text{EBO}}$                                     | -               | -           | 0.1             | $\mu\text{A}$ |
| Collector Emitter Breakdown Voltage<br>at $-I_{\text{C}} = 10\text{ mA}$                                                                                          | $-V_{(\text{BR})\text{CEO}}$                          | 50              | -           | -               | V             |
| Collector Emitter Saturation Voltage<br>at $-I_{\text{C}} = 1\text{ A}$ , $-I_{\text{B}} = 0.05\text{ A}$                                                         | $-V_{\text{CE(sat)}}$                                 | -               | -           | 0.5             | V             |
| Base Emitter Saturation Voltage<br>at $-I_{\text{C}} = 1\text{ A}$ , $-I_{\text{B}} = 0.05\text{ A}$                                                              | $-V_{\text{BE(sat)}}$                                 | -               | -           | 1.2             | V             |
| Transition Frequency<br>at $-V_{\text{CE}} = 2\text{ V}$ , $-I_{\text{C}} = 0.5\text{ A}$                                                                         | $f_{\text{T}}$                                        | -               | 100         | -               | MHz           |
| Collector Output Capacitance<br>at $-V_{\text{CB}} = 10\text{ V}$ , $f = 1\text{ MHz}$                                                                            | $C_{\text{ob}}$                                       | -               | 30          | -               | pF            |
| Turn On Time<br>at $-V_{\text{CC}} = 30\text{ V}$ , $-I_{\text{C}} = 1\text{ A}$ , $-I_{\text{B1}} = I_{\text{B2}} = 0.05\text{ A}$ , $R_{\text{L}} = 30\ \Omega$ | $t_{\text{on}}$                                       | -               | 0.1         | -               | $\mu\text{s}$ |
| Storage Time<br>at $-V_{\text{CC}} = 30\text{ V}$ , $-I_{\text{C}} = 1\text{ A}$ , $-I_{\text{B1}} = I_{\text{B2}} = 0.05\text{ A}$ , $R_{\text{L}} = 30\ \Omega$ | $t_{\text{stg}}$                                      | -               | 1           | -               | $\mu\text{s}$ |
| Fall Time<br>at $-V_{\text{CC}} = 30\text{ V}$ , $-I_{\text{C}} = 1\text{ A}$ , $-I_{\text{B1}} = I_{\text{B2}} = 0.05\text{ A}$ , $R_{\text{L}} = 30\ \Omega$    | $t_{\text{f}}$                                        | -               | 0.1         | -               | $\mu\text{s}$ |

TOP DYNAMIC

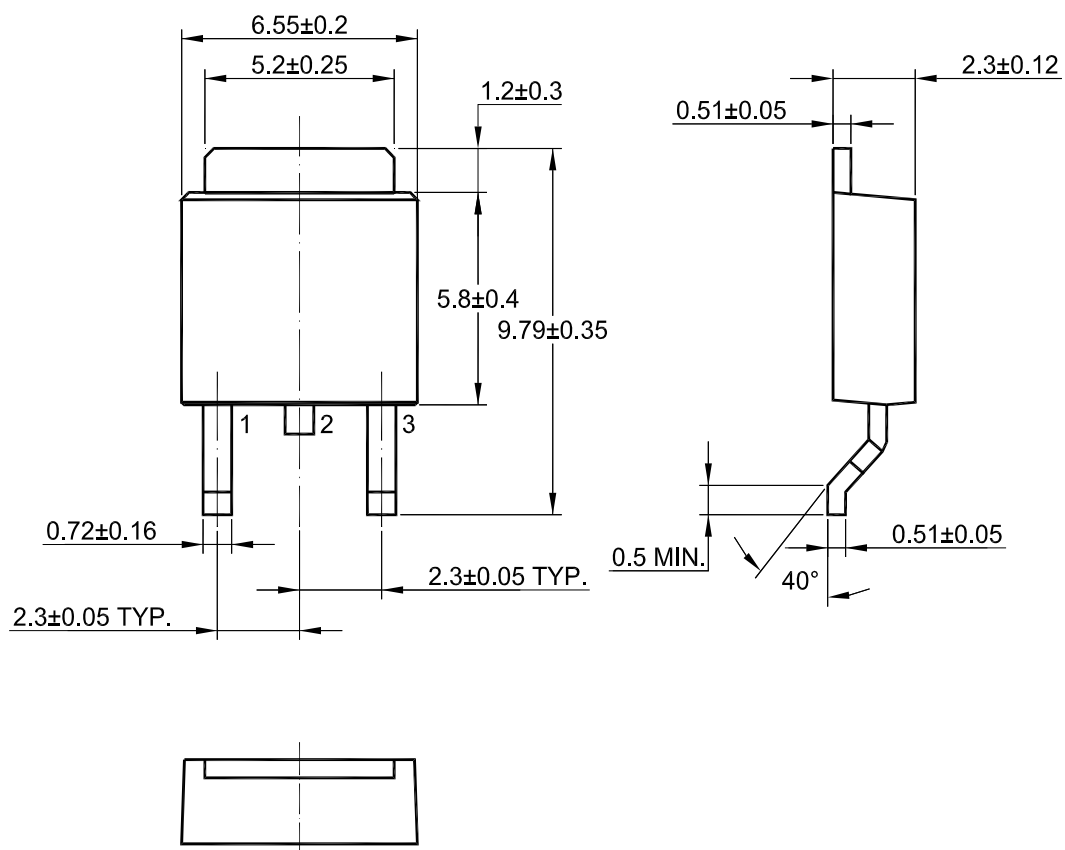


Dated : 31/08/2016 D Rev:02



# 2SA1718R

## TO-252 PACKAGE OUTLINE



Dimensions in mm

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