



# TAYCHIPST Schottky Barrier Rectifier

SDB10A40

40V 1.0A

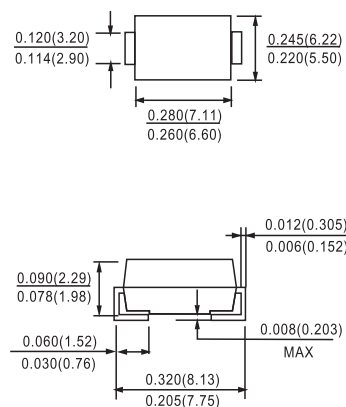
## FEATURES

- Low forward drop voltage and low reverse leakage current
- Low power rectified
- “Green” device and RoHS compliant device
- Available in full lead (Pb)-free device

## Applications

- Portable equipment battery applications
- Switching mode power supplies applications

DO-214AB(SMC)



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

### Absolute Maximum Ratings ( $T_{amb}=25^{\circ}\text{C}$ , Unless otherwise specified)

| Characteristic                      | Symbol    | Ratings | Unit               |
|-------------------------------------|-----------|---------|--------------------|
| Peak reverse voltage                | $V_{RM}$  | 40      | V                  |
| Reverse voltage                     | $V_R$     | 40      | V                  |
| Forward current                     | $I_F$     | 1       | A                  |
| Non-repetitive peak forward current | $I_{FSM}$ | 30      | A                  |
| Junction temperature                | $T_j$     | 150     | $^{\circ}\text{C}$ |
| Storage temperature                 | $T_{stg}$ | -55~150 | $^{\circ}\text{C}$ |

### Electrical Characteristics ( $T_{amb}=25^{\circ}\text{C}$ , Unless otherwise specified)

| Characteristic                        | Symbol              | Test Condition                     | Min. | Typ. | Max. | Unit          |
|---------------------------------------|---------------------|------------------------------------|------|------|------|---------------|
| Forward voltage <sup>1)</sup>         | $V_F$ <sup>1)</sup> | $I_F=1\text{A}$                    | -    | 0.5  | 0.55 | V             |
| Reverse leakage current <sup>2)</sup> | $I_R$ <sup>2)</sup> | $V_R=40\text{V}$                   | -    | -    | 200  | $\mu\text{A}$ |
| Total capacitance                     | $C_T$               | $V_R=10\text{V}$ , $f=1\text{MHz}$ | -    | 50   | -    | pF            |

<sup>1)</sup> Pulse test:  $t_p \leq 380\mu\text{s}$ , Duty cycle  $\leq 2\%$

<sup>2)</sup> Pulse test:  $t_p \leq 5\text{ms}$ , Duty cycle  $\leq 2\%$



**TAYCHIPST**

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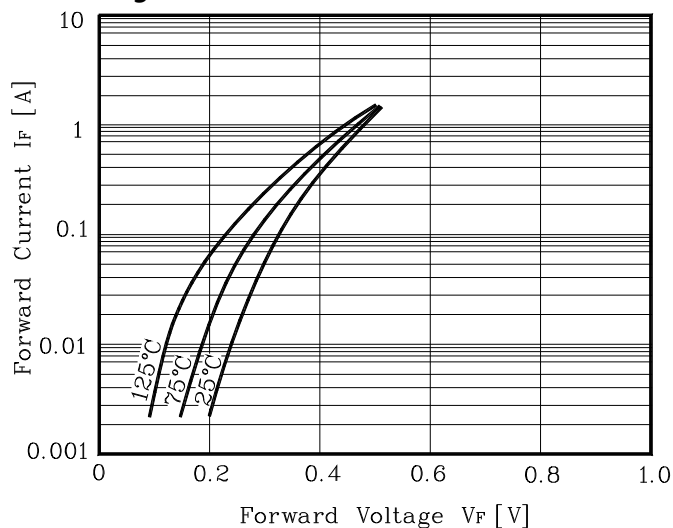
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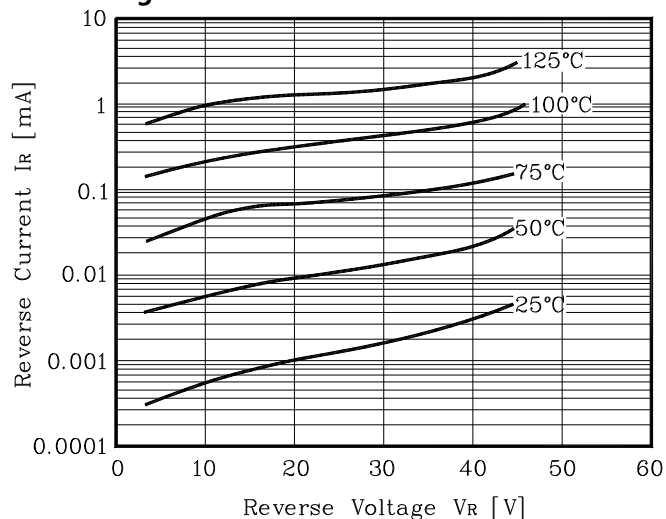
## RATINGS AND CHARACTERISTIC CURVES

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**Fig. 1 Forward Characteristics**



**Fig. 2 Reverse Characteristics**



**Fig. 3 Total Capacitance**

