

# SHINDENGEN

## Schottky Rectifiers (SBD)

Dual

# D5SC4MR

## 40V 5A

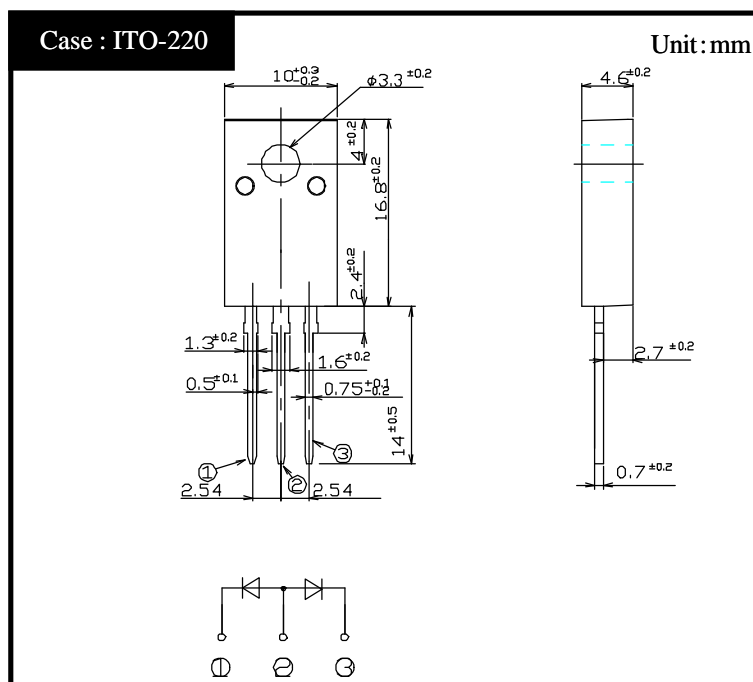
### FEATURES

Tj150  
 $P_{RRSM}$  avalanche guaranteed  
 Fully Isolated Molding

### APPLICATION

Switching power supply  
 DC/DC converter  
 Home Appliances, Office Equipment  
 Telecommunication

### OUTLINE DIMENSIONS



### RATINGS

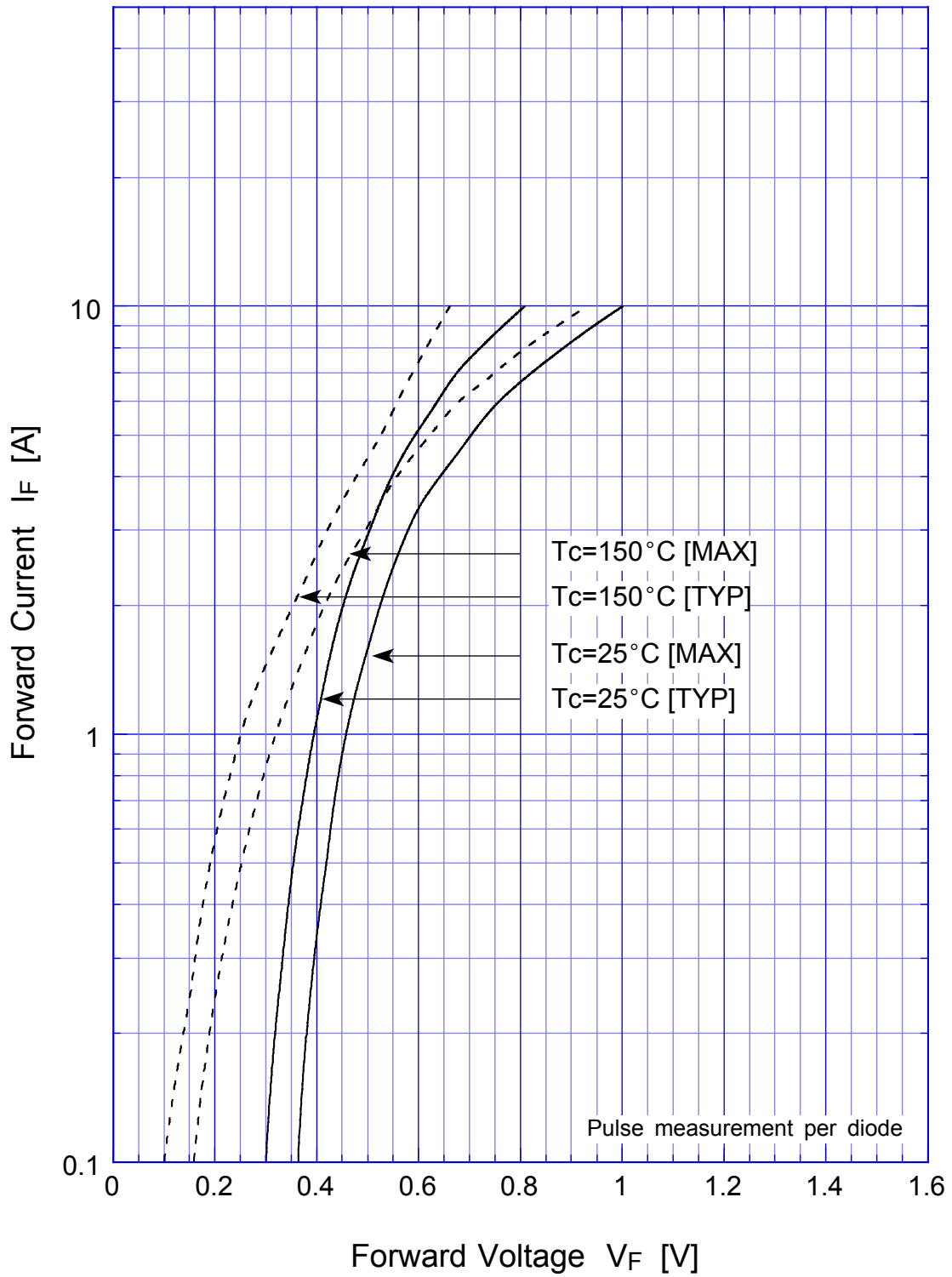
Absolute Maximum Ratings (If not specified Tc=25 )

| Item                                  | Symbol     | Conditions   | Ratings   | Unit |
|---------------------------------------|------------|--|-----------|------|
| Storage Temperature                   | Tstg       |  | -40 ~ 150 |      |
| Operating Junction Temperature        | Tj         |  | 150       |      |
| Maximum Reverse Voltage               | $V_{RM}$   |  | 40        | V    |
| Repetitive Peak Surge Reverse Voltage | $V_{RRSM}$ | Pulse width 0.5ms, duty 1/40                                   | 45        | V    |
| Average Rectified Forward Current     | $I_o$      | 50Hz sine wave, R-load, Rating for each diode $I_o/2$ , Tc=136 | 5         | A    |
| Peak Surge Forward Current            | $I_{FSM}$  | 50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=125      | 50        | A    |
| Repetitive Peak Surge Reverse Power   | $P_{RRSM}$ | Pulse width 10 $\mu$ s, Rating of per diode, Tj=25             | 330       | W    |
| Dielectric Strength                   | Vdis       | Terminals to case, AC 1 minute                                 | 1.5       | kV   |
| Mounting Torque                       | TOR        | (Recommended torque 0.3N·m)                                    | 0.5       | N·m  |

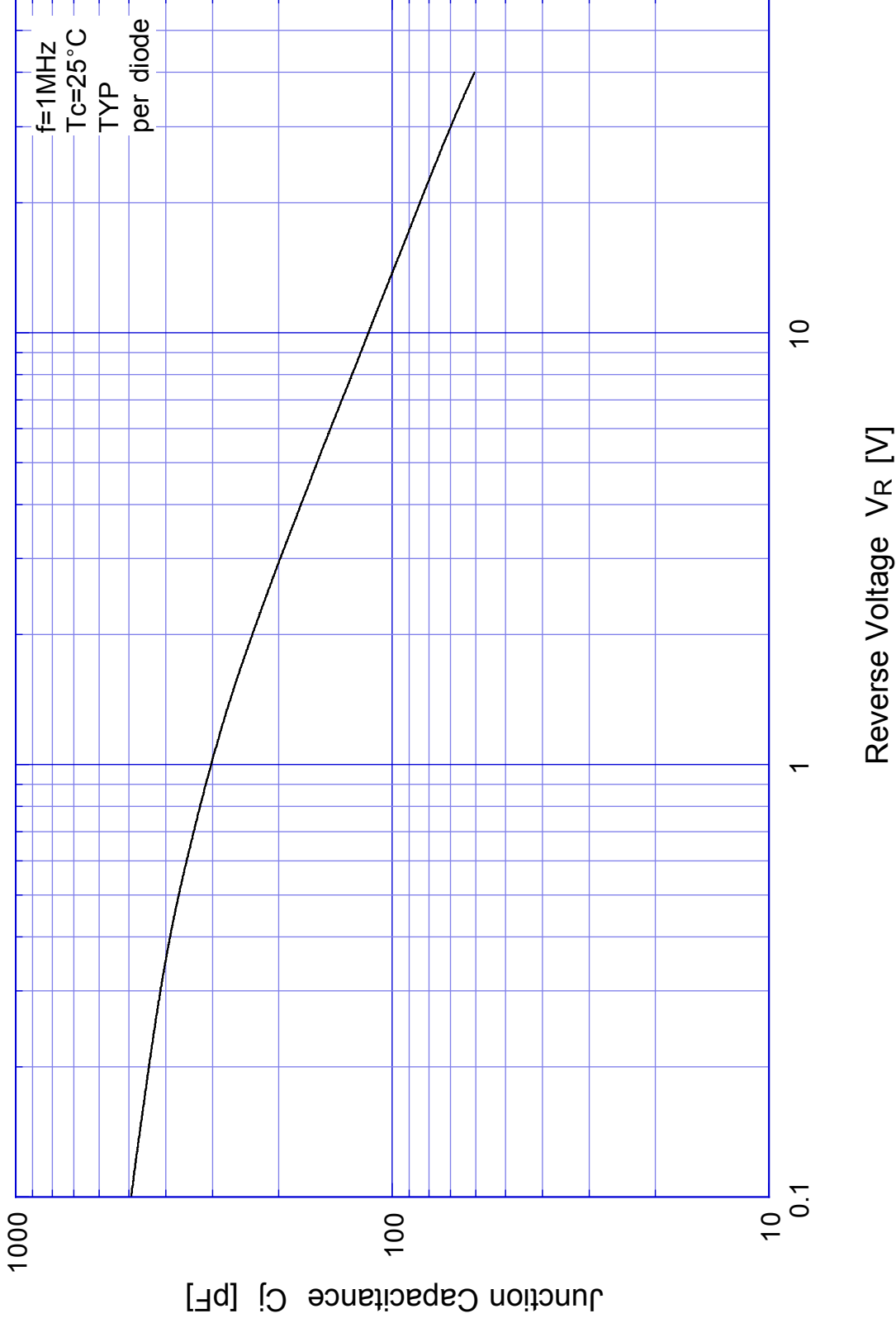
Electrical Characteristics (If not specified Tc=25 )

| Item                 | Symbol     | Conditions  | Ratings  | Unit |
|----------------------|------------|---|----------|------|
| Forward Voltage      | $V_F$      | $I_F=2.5A$ , Pulse measurement, Rating of per diode   | Max.0.55 | V    |
| Reverse Current      | $I_R$      | $V_R=V_{RM}$ , Pulse measurement, Rating of per diode | Max.2.5  | mA   |
| Junction Capacitance | Cj         | f=1MHz, $V_R=10V$ , Rating of per diode               | Typ.116  | pF   |
| Thermal Resistance   | $\theta_c$ | junction to case                                      | Max.3.3  | /W   |

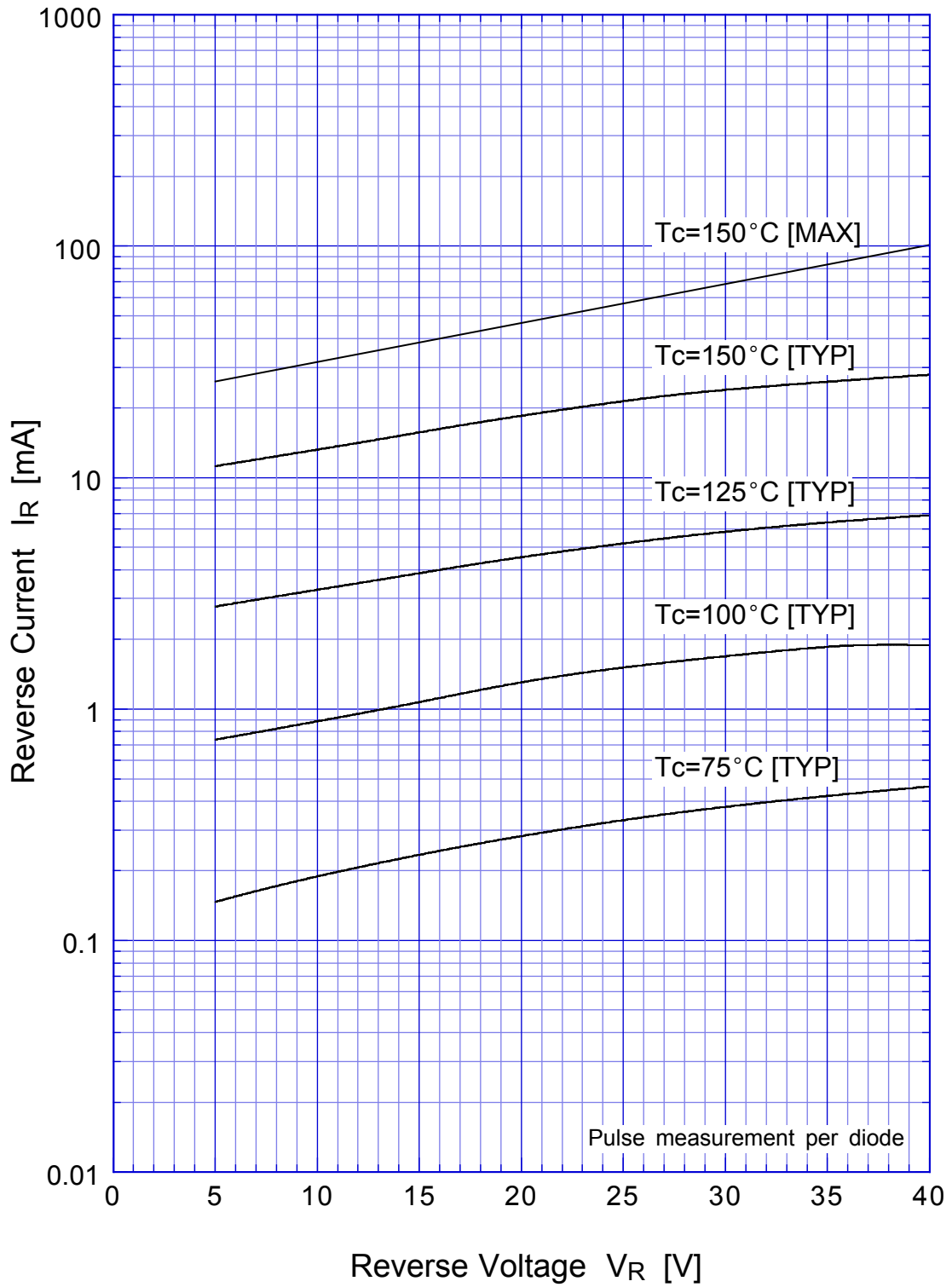
# D5SC4MR Forward Voltage



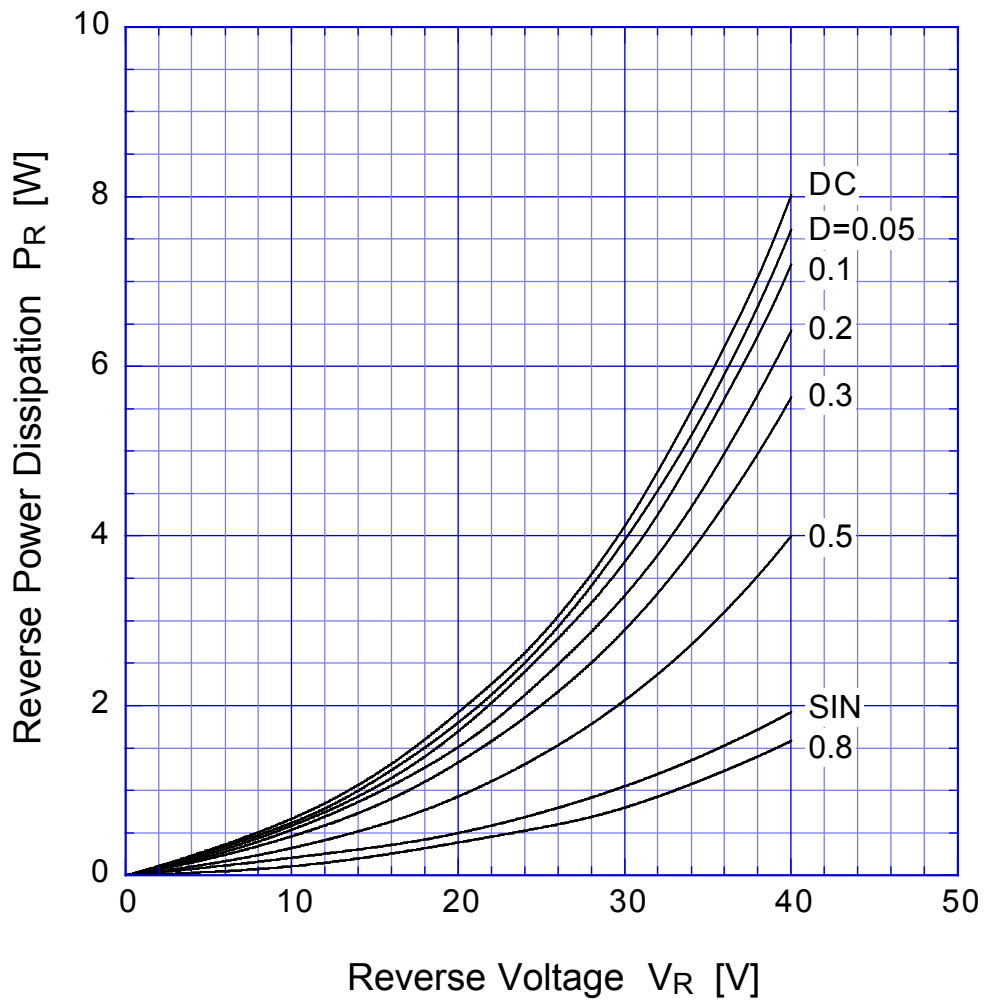
# D5SC4MR Junction Capacitance



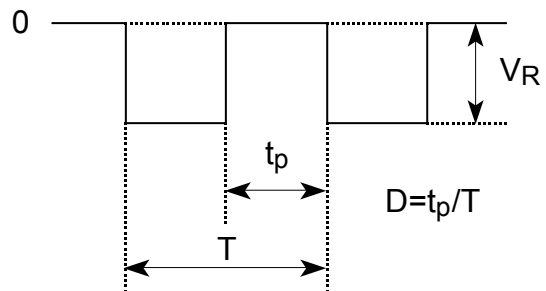
# D5SC4MR Reverse Current



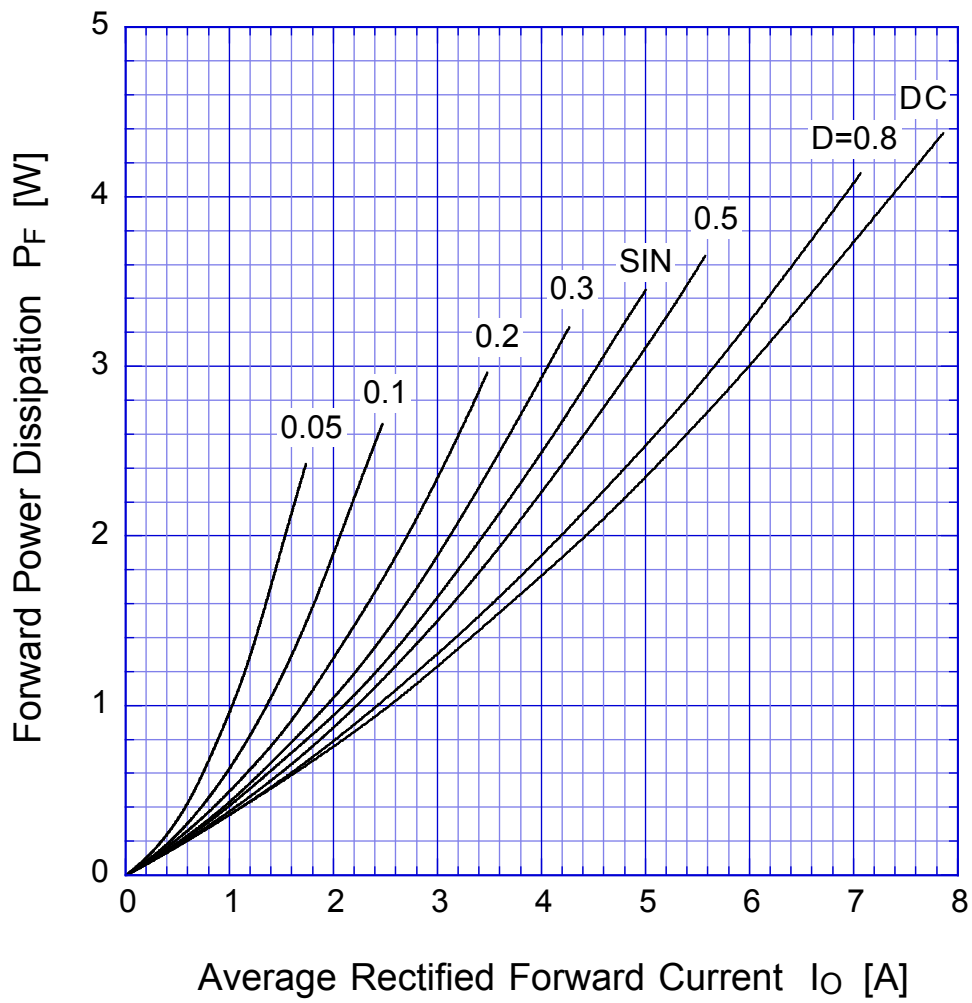
## D5SC4MR Reverse Power Dissipation



$T_j = 150^\circ\text{C}$



## D5SC4MR Forward Power Dissipation

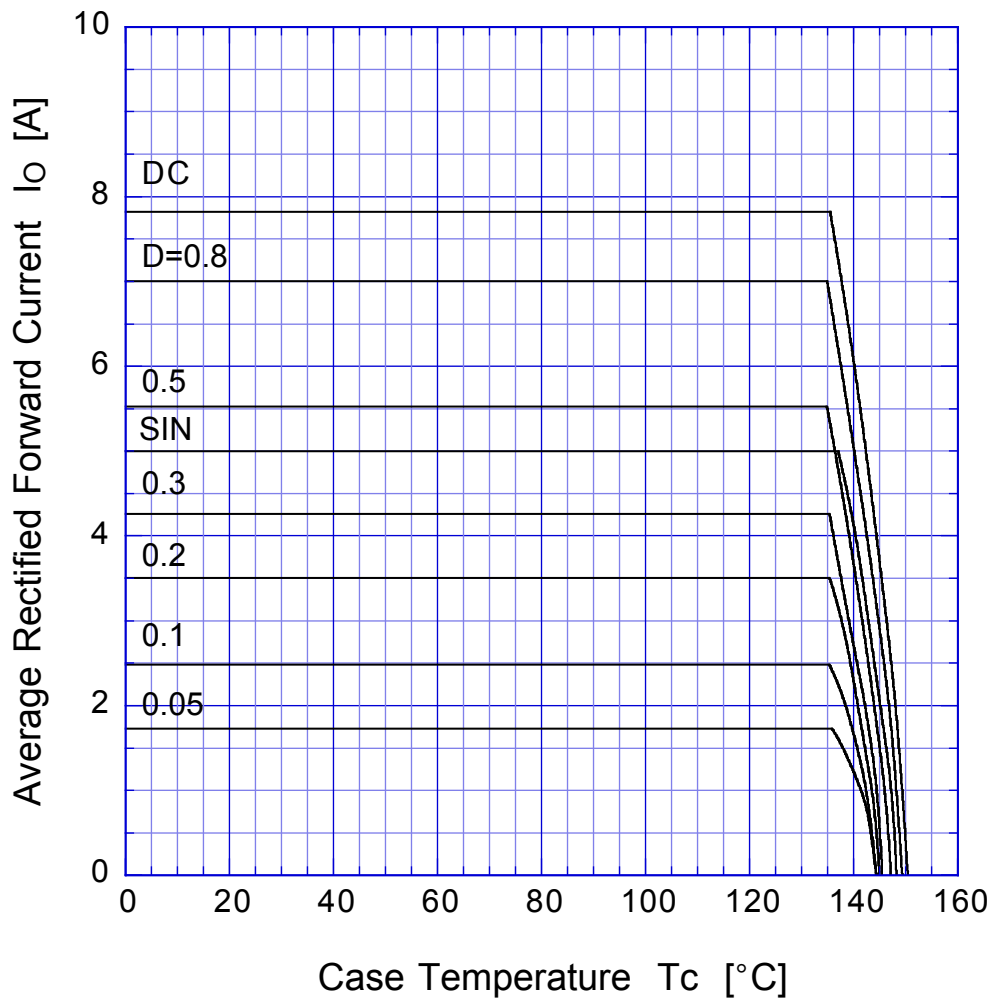


$T_j = 150^\circ\text{C}$

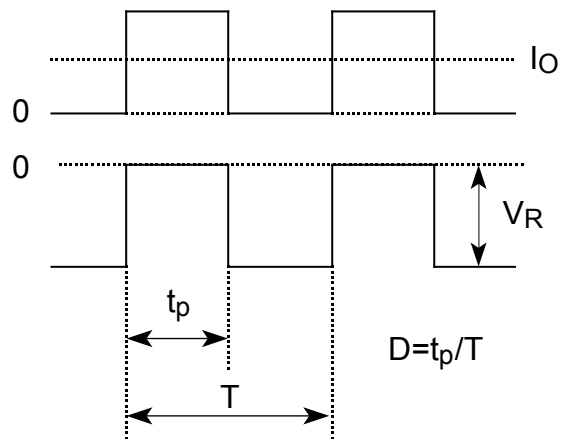


# D5SC4MR

## Derating Curve

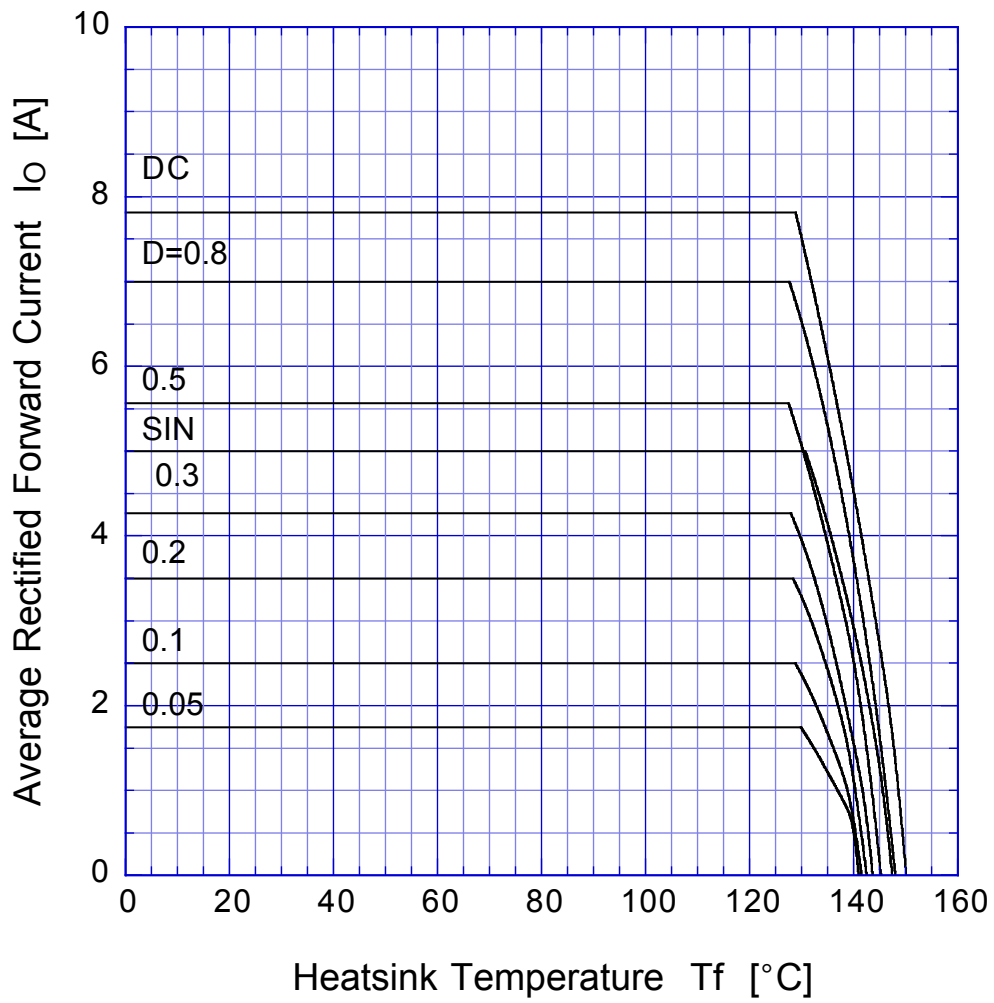


$V_R = 20V$

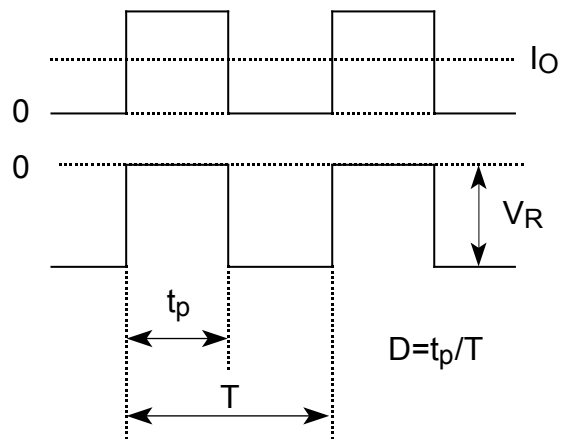


# D5SC4MR

## Derating Curve

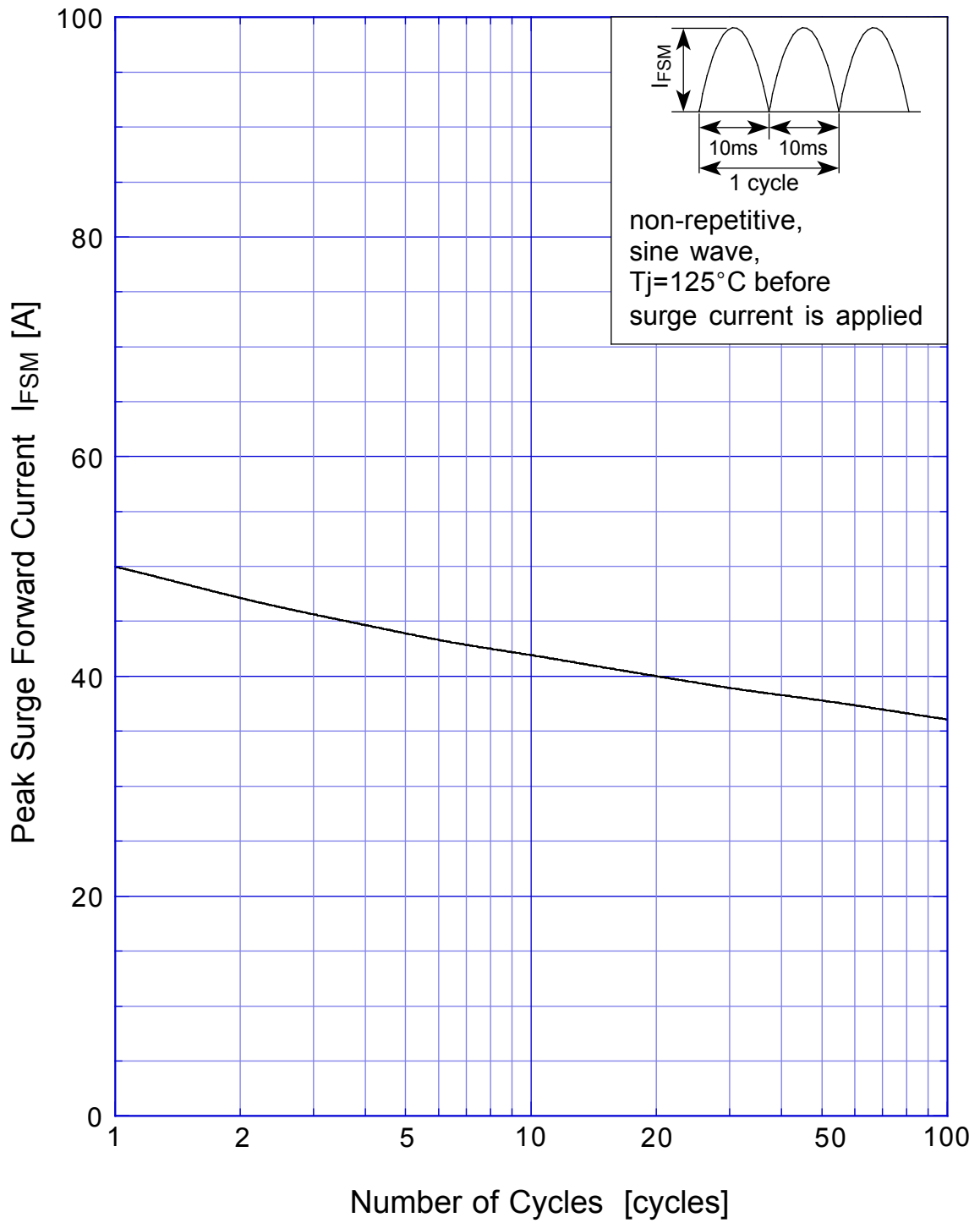


$V_R = 20V$

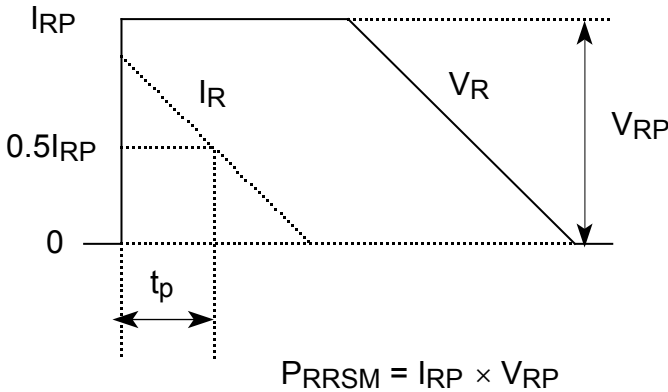
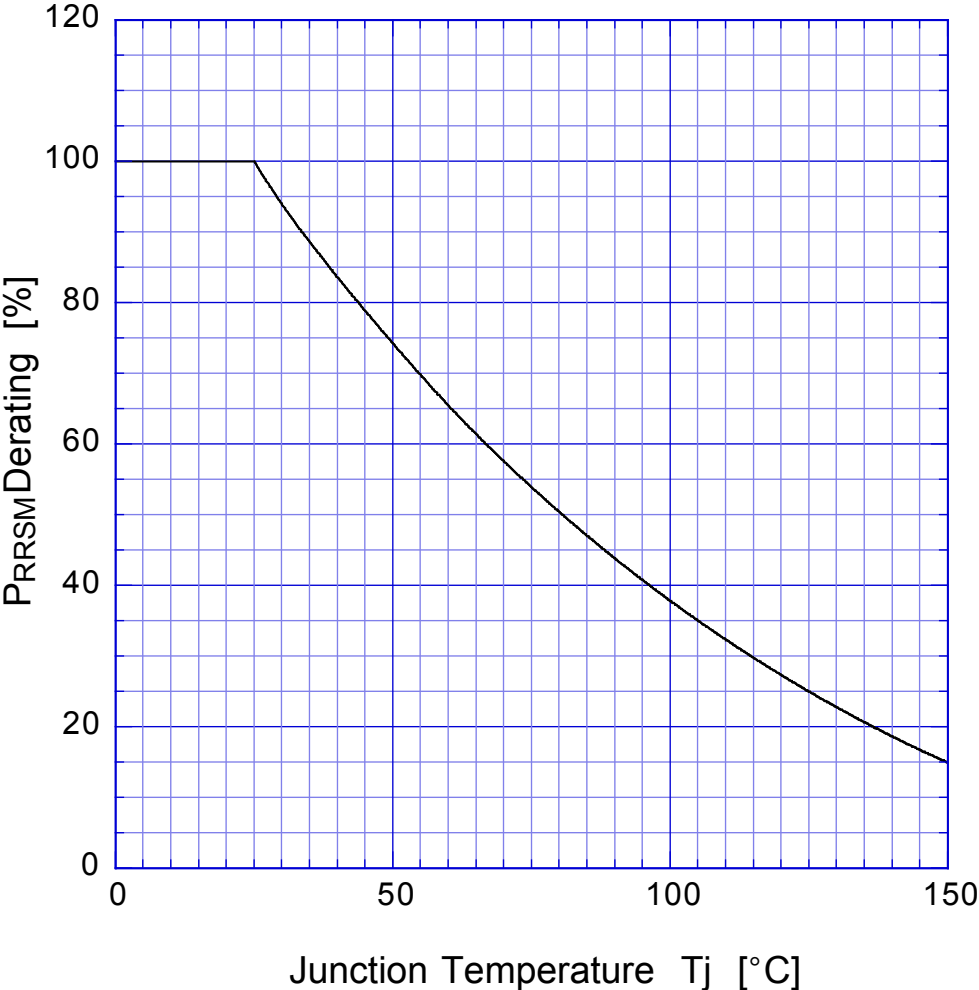




# D5SC4MR Peak Surge Forward Capability



# SBD Repetitive Surge Reverse Power Derating Curve



# SBD

## Repetitive Surge Reverse Power Capability

