

SHINDENGEN

Schottky Rectifiers (SBD)

Dual

D10SC6MR

60V 10A

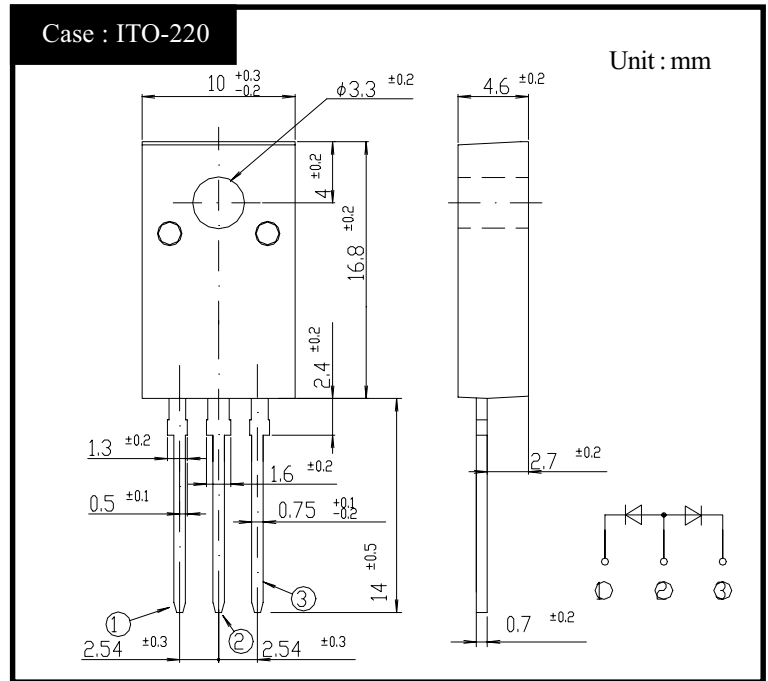
FEATURES

- Tj150°C
- P_{RRSM} avalanche guaranteed
- Fully Isolated Molding

APPLICATION

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

OUTLINE DIMENSIONS



RATINGS

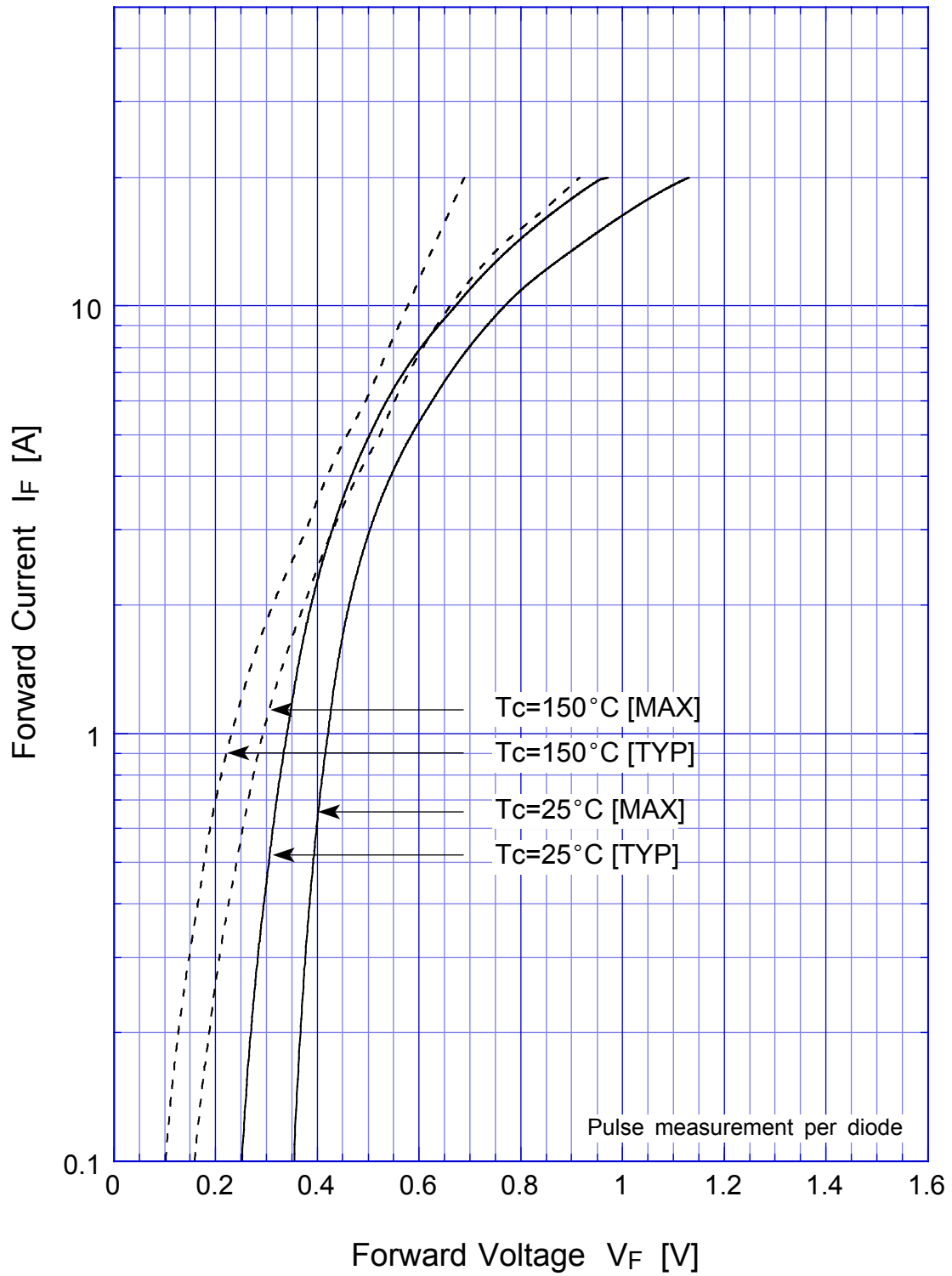
● Absolute Maximum Ratings (If not specified T_c=25°C)

| Item | Symbol | Conditions | Ratings | Unit |
|---------------------------------------|-------------------|--|---------|------|
| Storage Temperature | T _{stg} | | -40~150 | °C |
| Operating Junction Temperature | T _j | | 150 | °C |
| Maximum Reverse Voltage | V _{RM} | | 60 | V |
| Repetitive Peak Surge Reverse Voltage | V _{RRSM} | Pulse width 0.5ms, duty 1/40 | 65 | V |
| Average Rectified Forward Current | I _o | 50Hz sine wave, R-load, Rating for each diode I _o /2, T _c =120°C | 10 | A |
| Peak Surge Forward Current | I _{FSM} | 50Hz sine wave, Non-repetitive 1 cycle peak value, T _j =125°C | 100 | A |
| Repetitive Peak Surge Reverse Power | P _{RRSM} | Pulse width 10 μs, Rating of per diode, T _j = 25°C | 330 | W |
| Dielectric Strength | V _{dis} | Terminals to case, AC 1 minute | 1.5 | kV |
| Mounting Torque | TOR | (Recommended torque: 0.3N·m) | 0.5 | N·m |

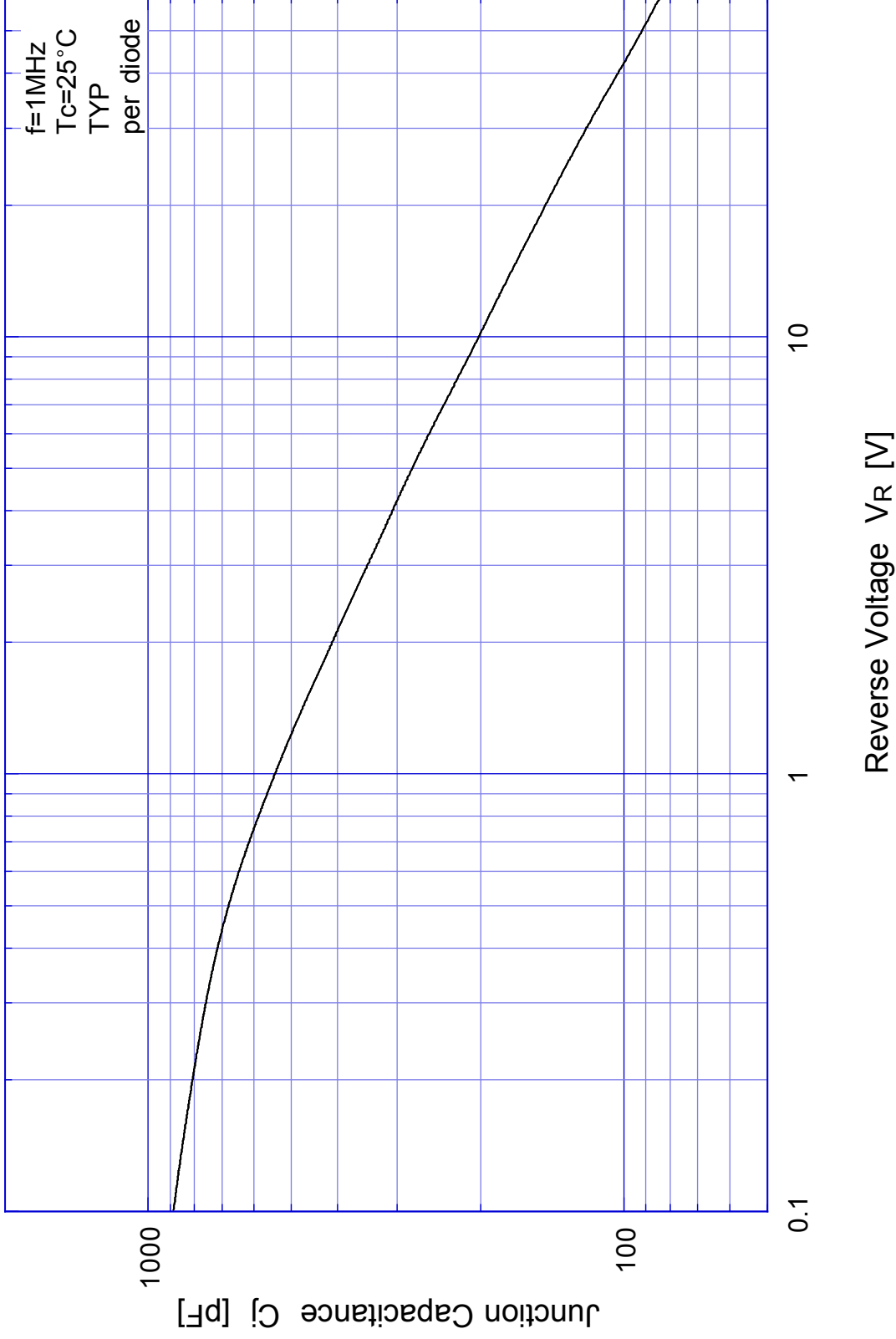
● Electrical Characteristics T_c=25°C

| Item | Symbol | Conditions | Ratings | Unit |
|----------------------|-----------------|--|----------|------|
| Forward Voltage | V _F | I _F =5A, Pulse measurement, Rating of per diode | Max 0.58 | V |
| Reverse Current | I _R | V _R =V _{RM} , Pulse measurement, Rating of per diode | Max 4.5 | mA |
| Junction Capacitance | C _j | f=1MHz, V _R =10V, Rating of per diode | Typ 200 | pF |
| Thermal Resistance | θ _{jc} | junction to case | Max 3.3 | °C/W |
| | θ _{jf} | junction to heatsink (Reference value) | Max 4.8 | |

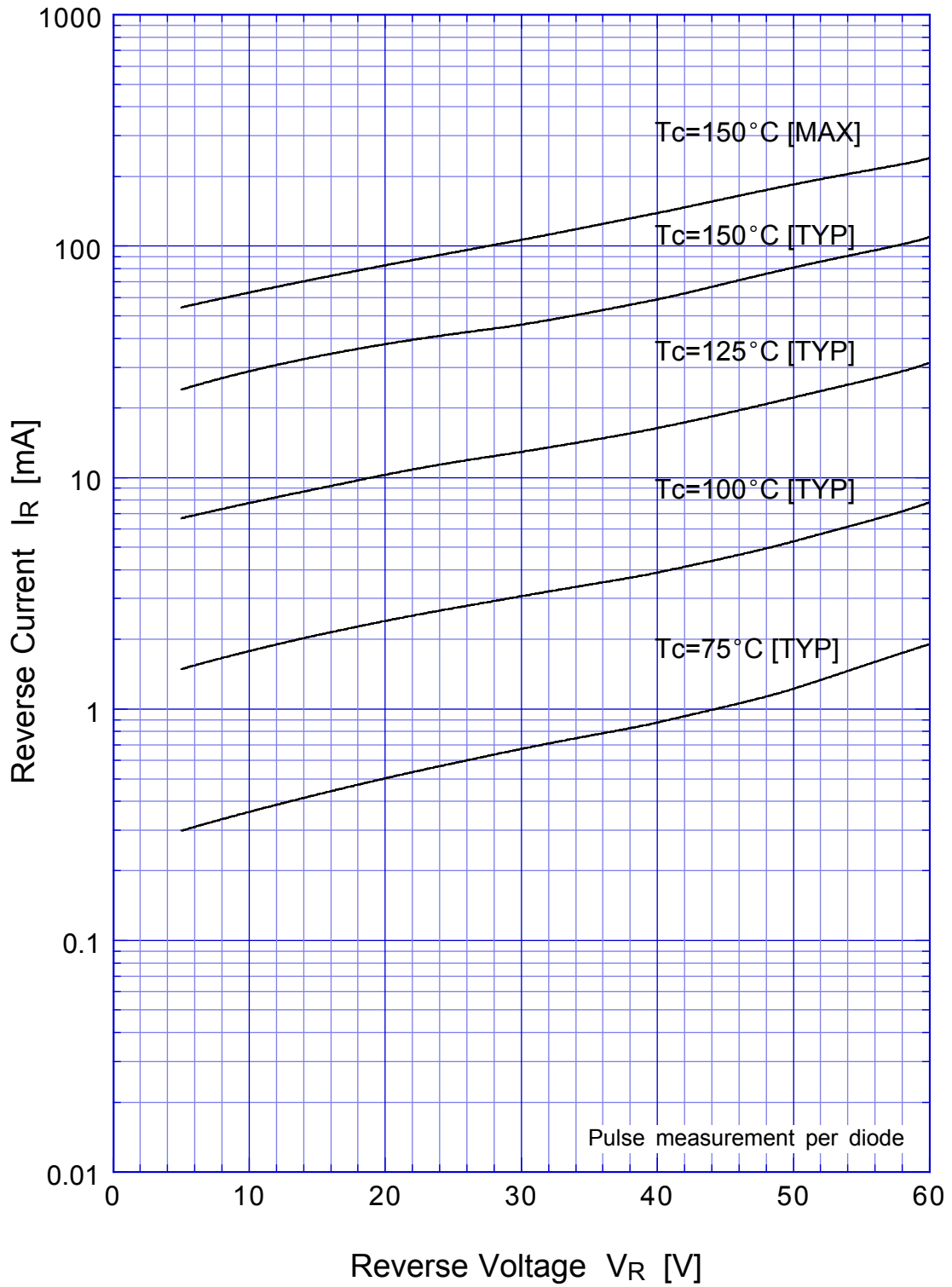
D10SC6MR Forward Voltage



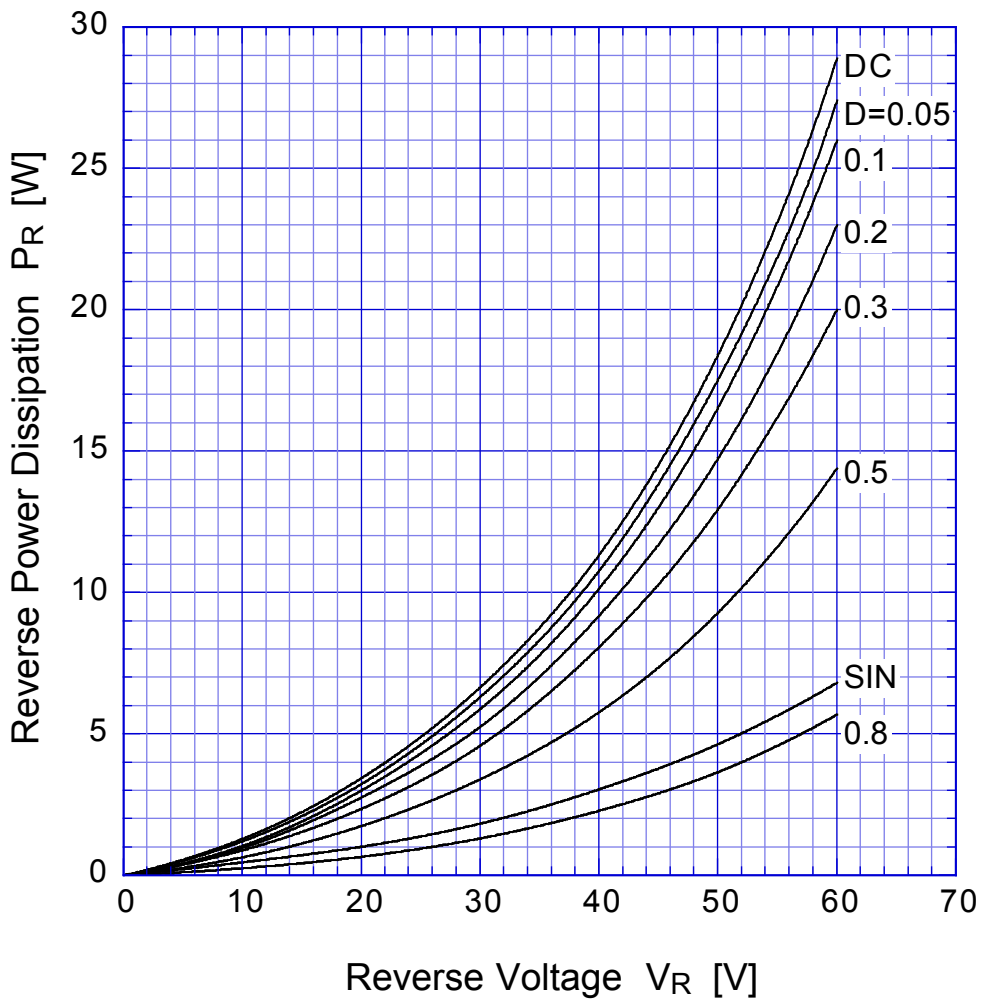
D10SC6MR Junction Capacitance



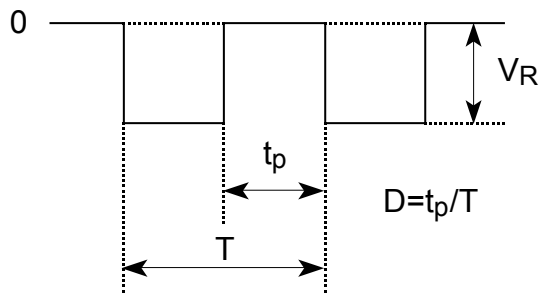
D10SC6MR Reverse Current



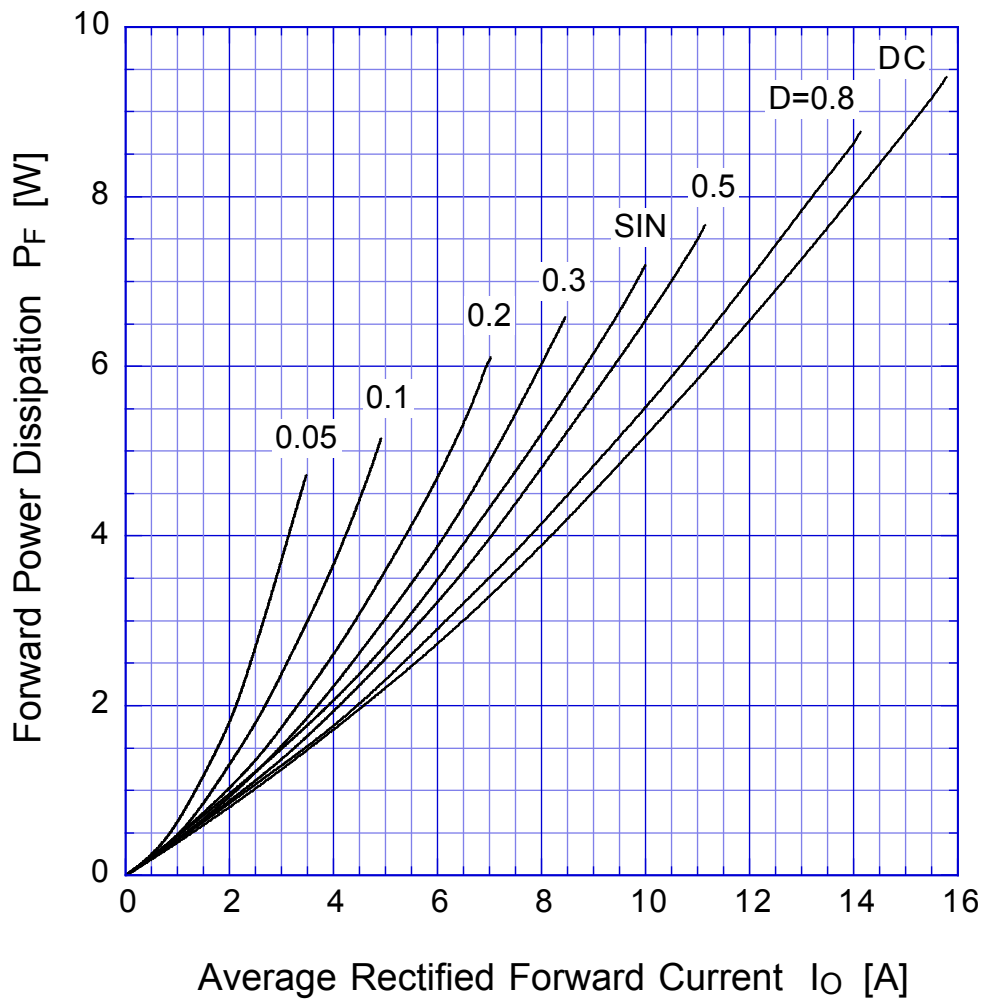
D10SC6MR Reverse Power Dissipation



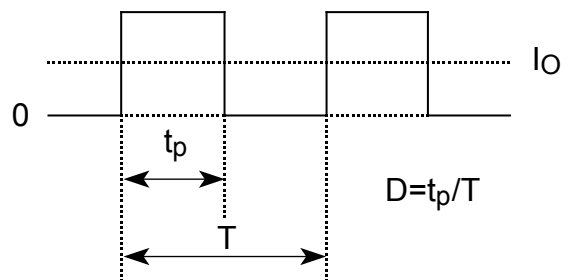
$T_j = 150^\circ\text{C}$



D10SC6MR Forward Power Dissipation

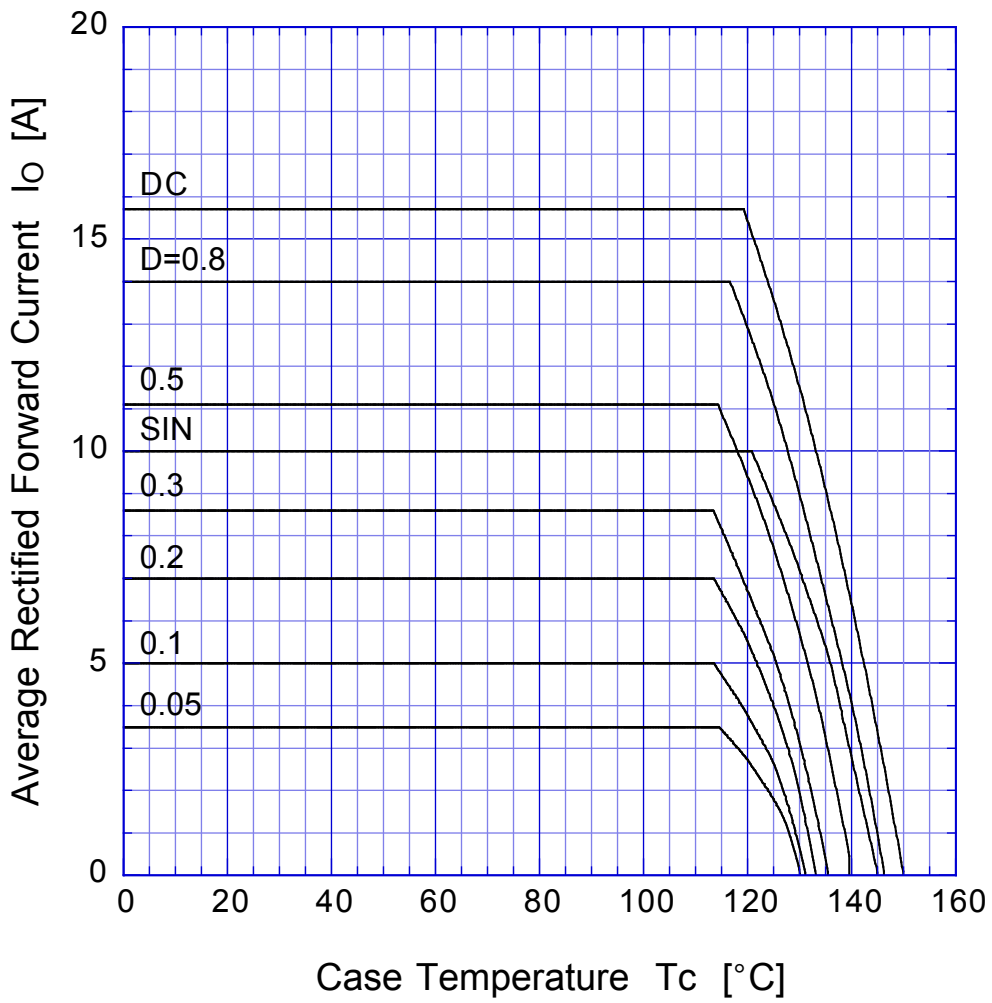


$T_j = 150^\circ\text{C}$



D10SC6MR

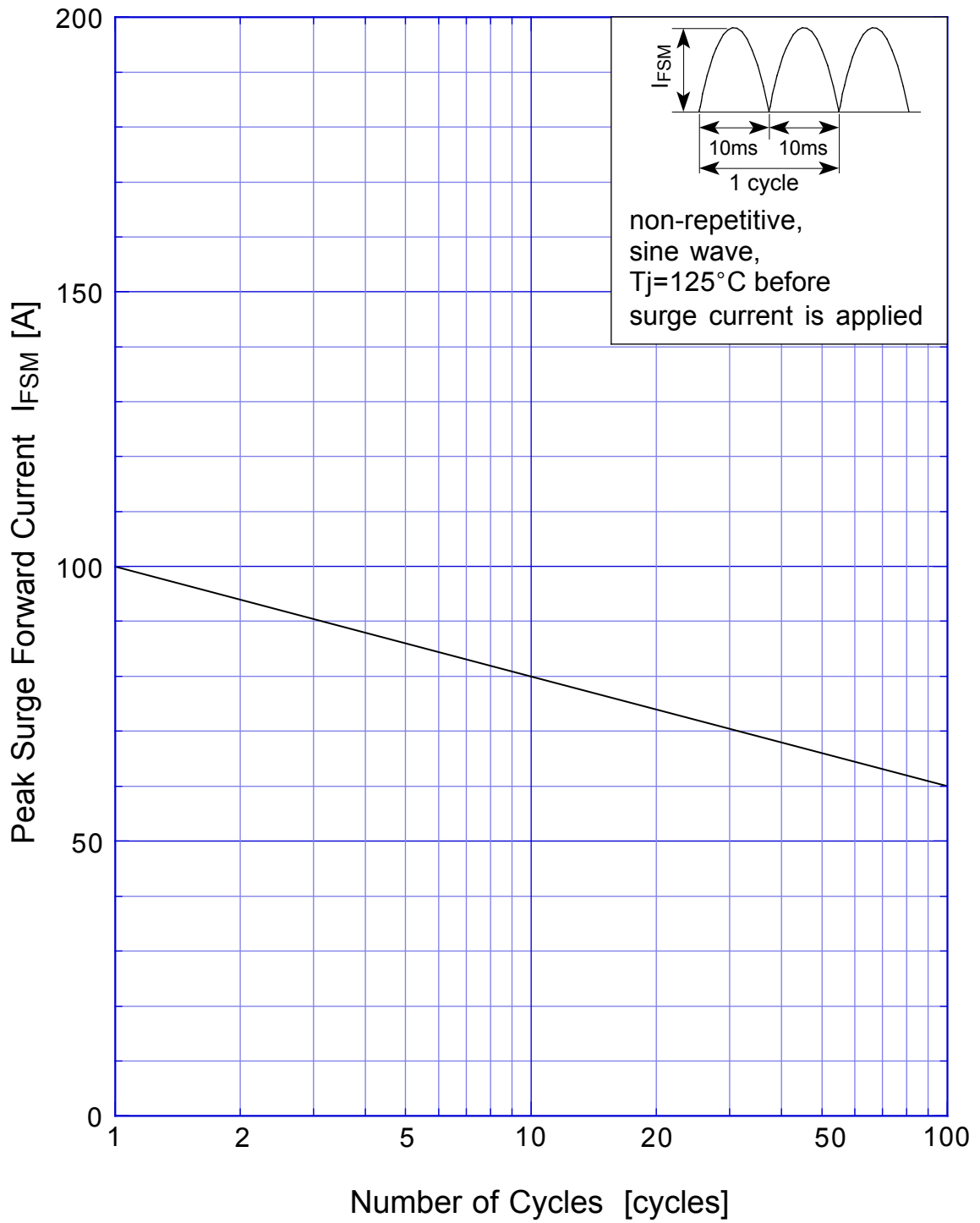
Derating Curve



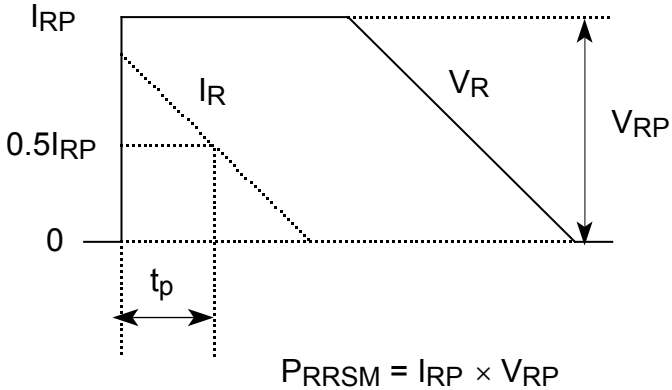
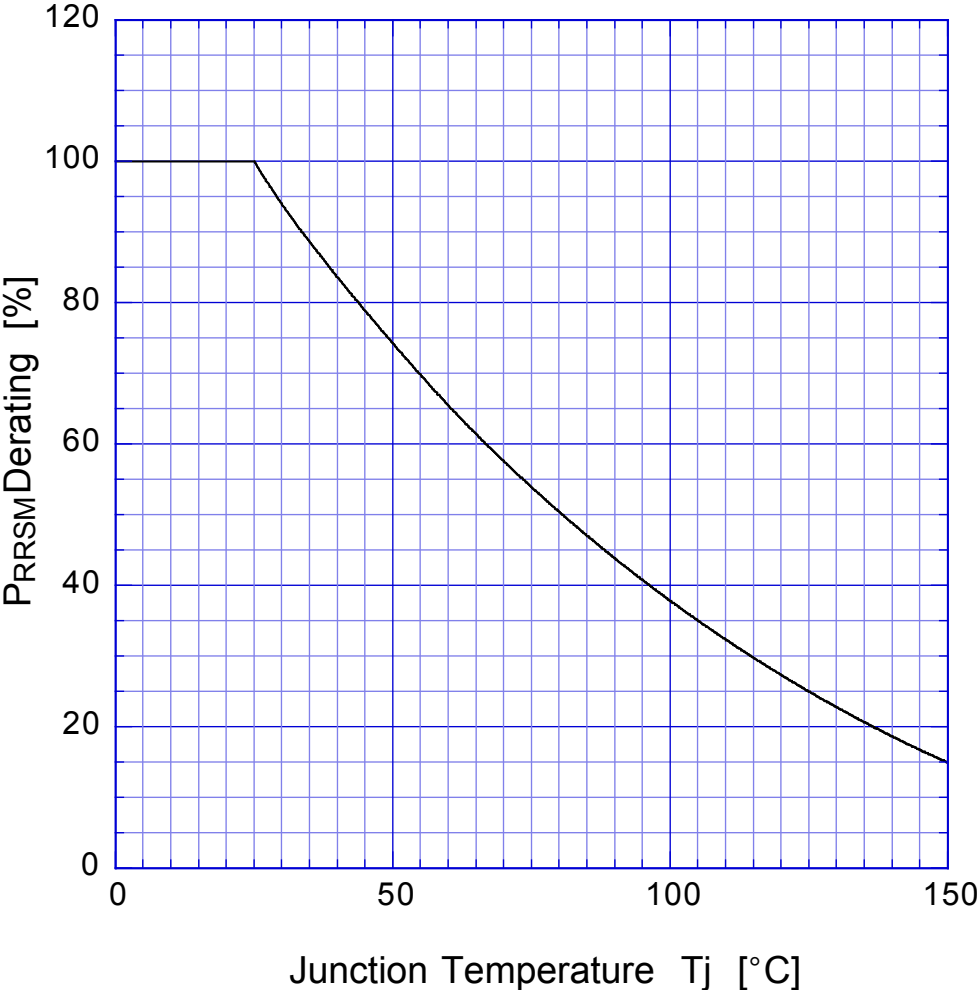
$V_R = 30V$



D10SC6MR Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve



SBD

Repetitive Surge Reverse Power Capability

