

SHINDENGEN

Schottky Rectifiers (SBD)

Single

M1FP3

30V 1.29A

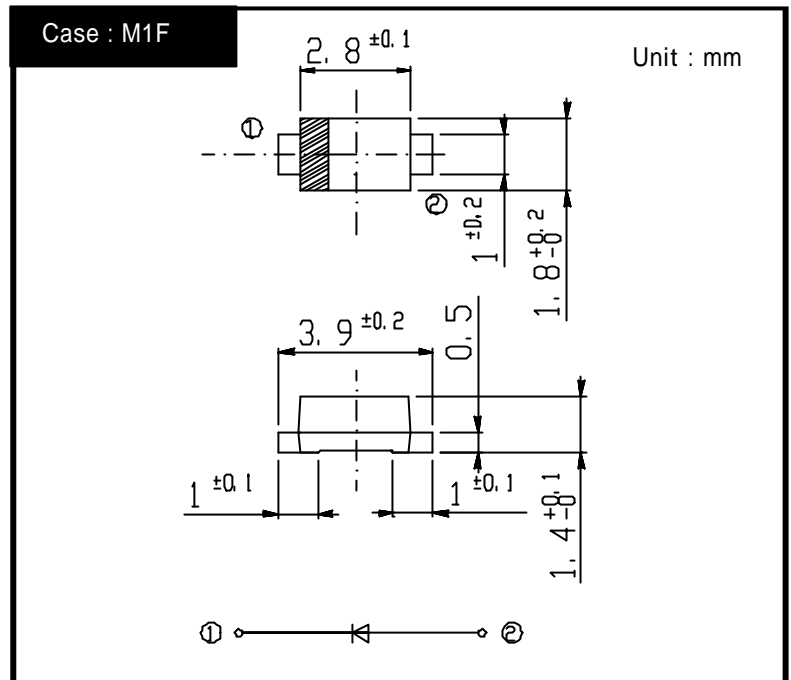
FEATURES

Small SMT
Super low $V_f=0.4V$

APPLICATION

Reversed Battery Connection Protection
DC OR output
DC/DC converter
Mobile telephone, personal computer

OUTLINE DIMENSIONS



RATINGS

Absolute Maximum Ratings (If not specified $T_I=25$)

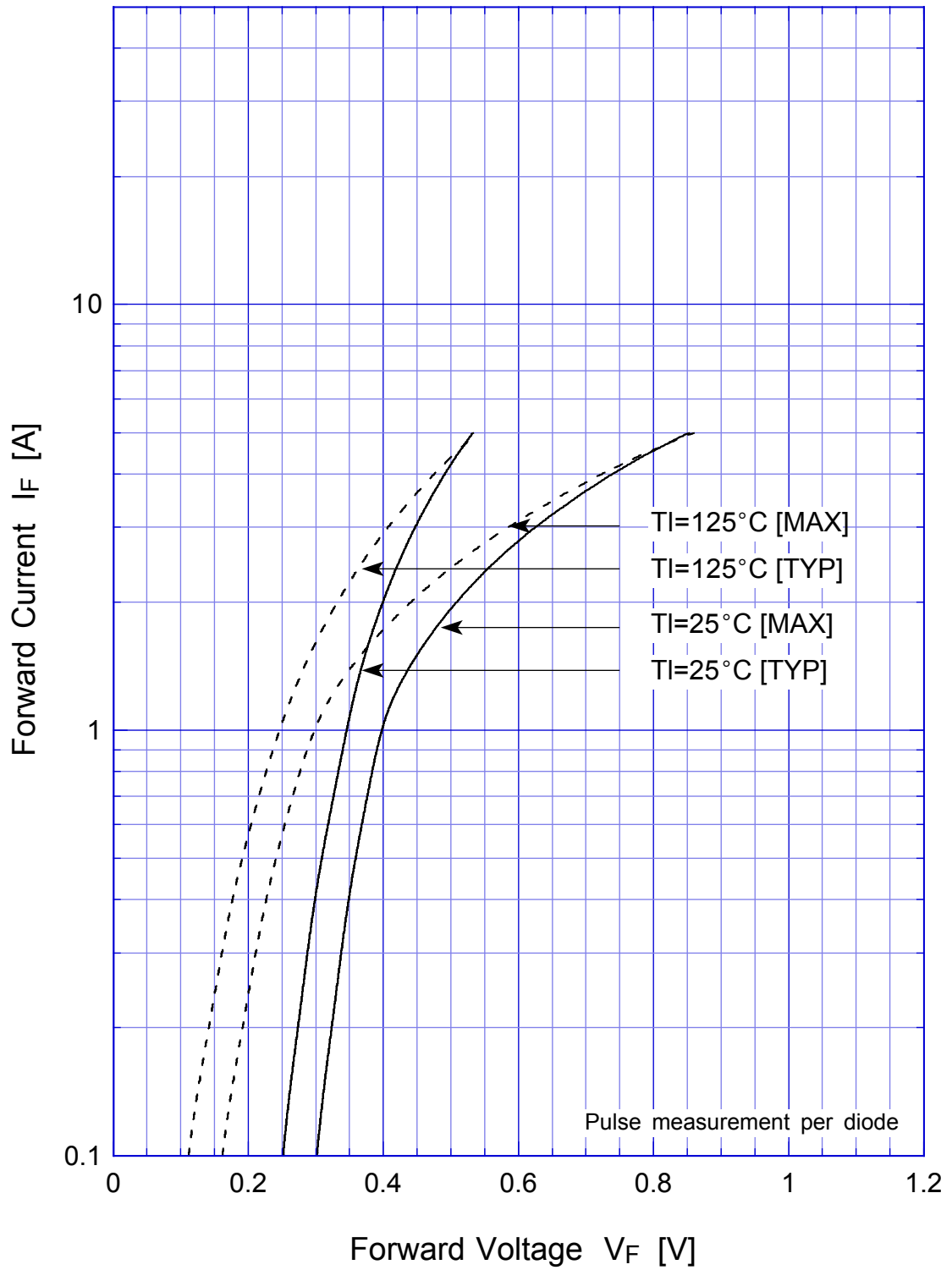
| Item | Symbol | Conditions | Ratings | Unit |
|-----------------------------------|-----------|---|-----------|------|
| Storage Temperature | T_{stg} | | -55 ~ 125 | |
| Operating Junction Temperature | T_j | | 125 | |
| Maximum Reverse Voltage | V_{RM} | | 30 | V |
| Average Rectified Forward Current | I_o | 50Hz sine wave, R-load $T_a=25$ On alumina substrate | 1.29 | A |
| | | 50Hz sine wave, R-load $T_I=109$ On glass-epoxy substrate | 1.1 | |
| Peak Surge Forward Current | I_{FSM} | 50Hz sine wave, Non-repetitive 1 cycle peak value, $T_I=25$ | 30 | A |

Electrical Characteristics (If not specified $T_I=25$)

| Item | Symbol | Conditions | Ratings | Unit |
|----------------------|------------|--|----------|------|
| Forward Voltage | V_F | $I_F=0.4A$, Pulse measurement | Max.0.35 | V |
| | | $I_F=1.1A$, Pulse measurement | Max.0.40 | |
| Reverse Current | I_R | $V_R=30V$, Pulse measurement | Max.2.5 | mA |
| Junction Capacitance | C_j | $f=1MHz$, $V_R=10V$ | Typ.90 | pF |
| Thermal Resistance | θ_j | junction to lead | Max.20 | /W |
| | | junction to ambient On alumina substrate | Max.108 | |
| | | junction to ambient On glass-epoxy substrate | Max.186 | |

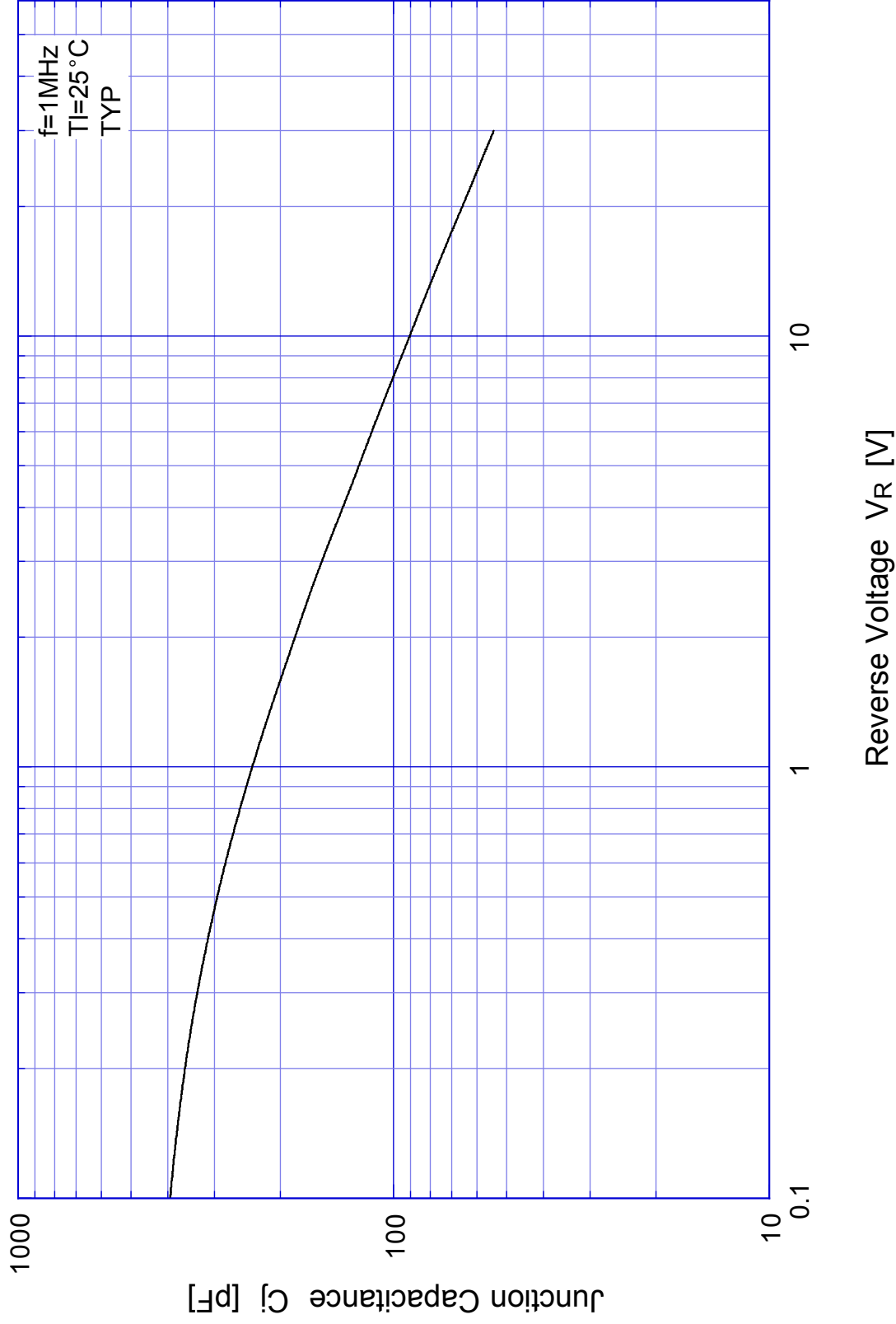
M1FP3

Forward Voltage



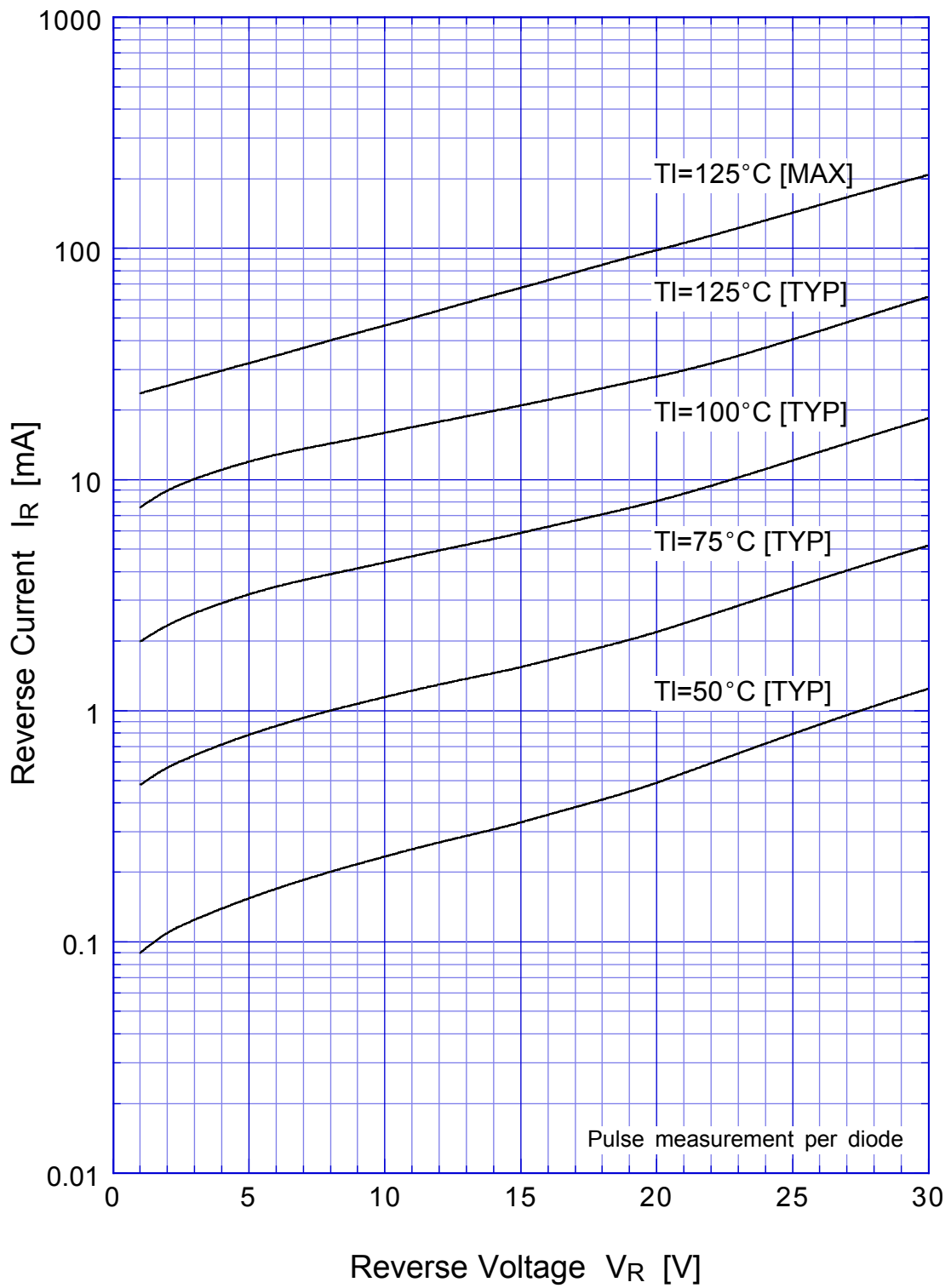
M1FP3

Junction Capacitance



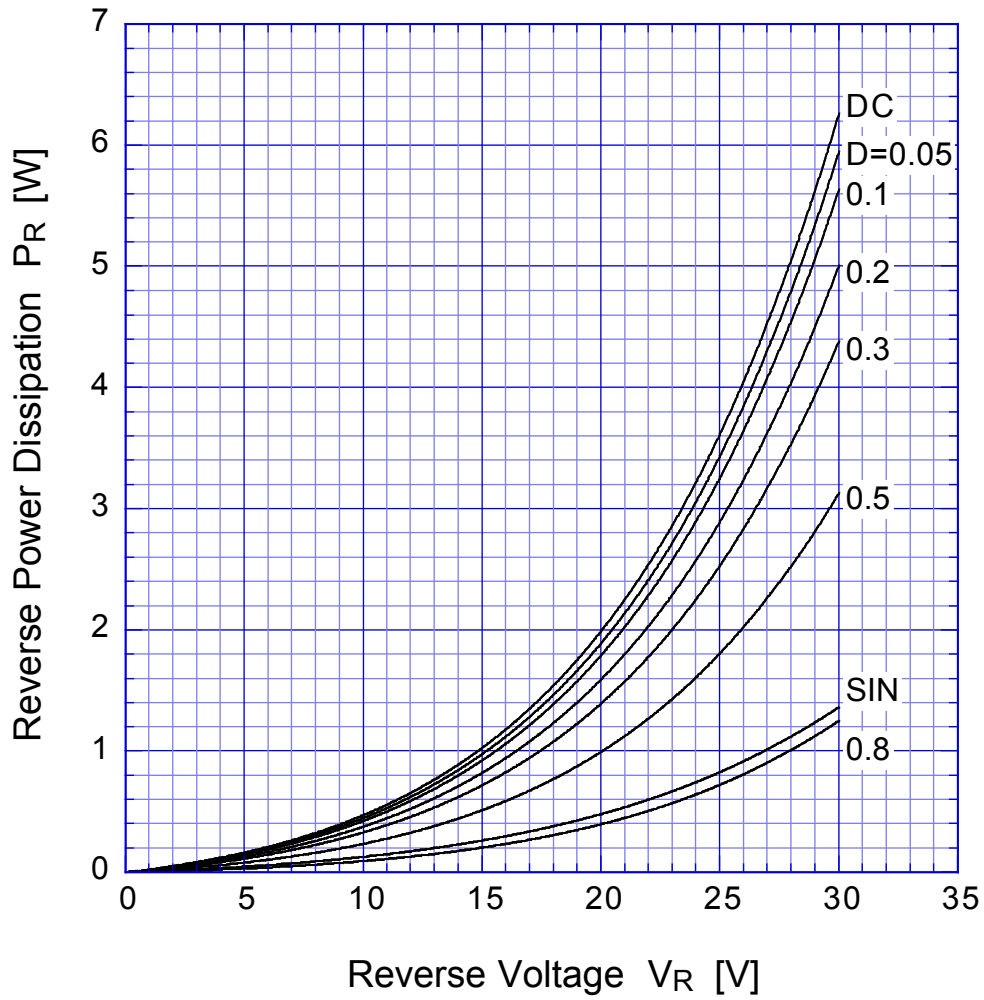
M1FP3

Reverse Current

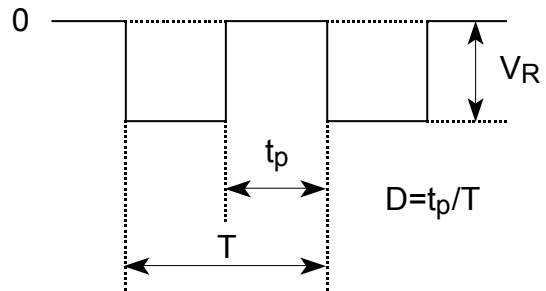


M1FP3

Reverse Power Dissipation

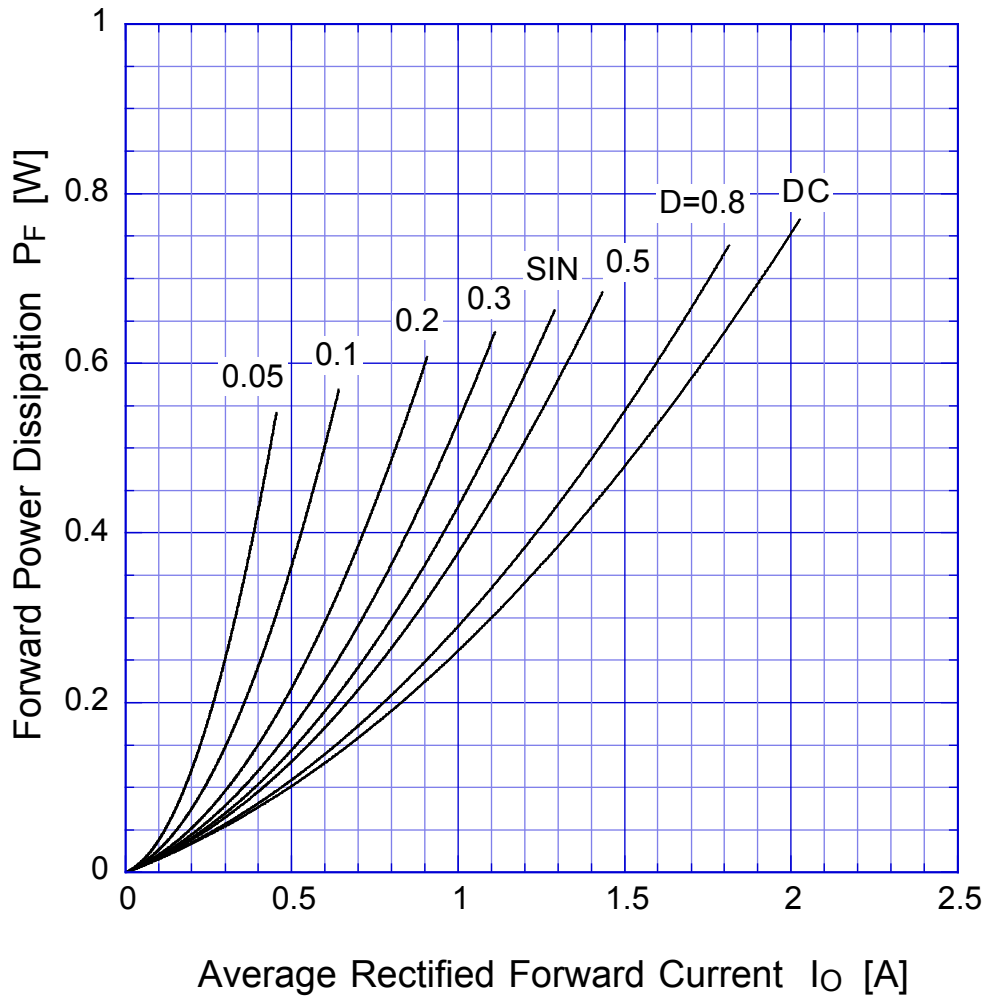


$T_j = 125^\circ\text{C}$

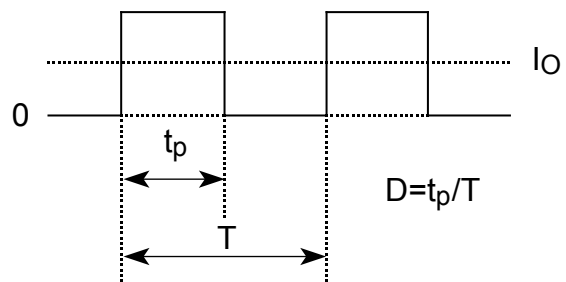


M1FP3

Forward Power Dissipation

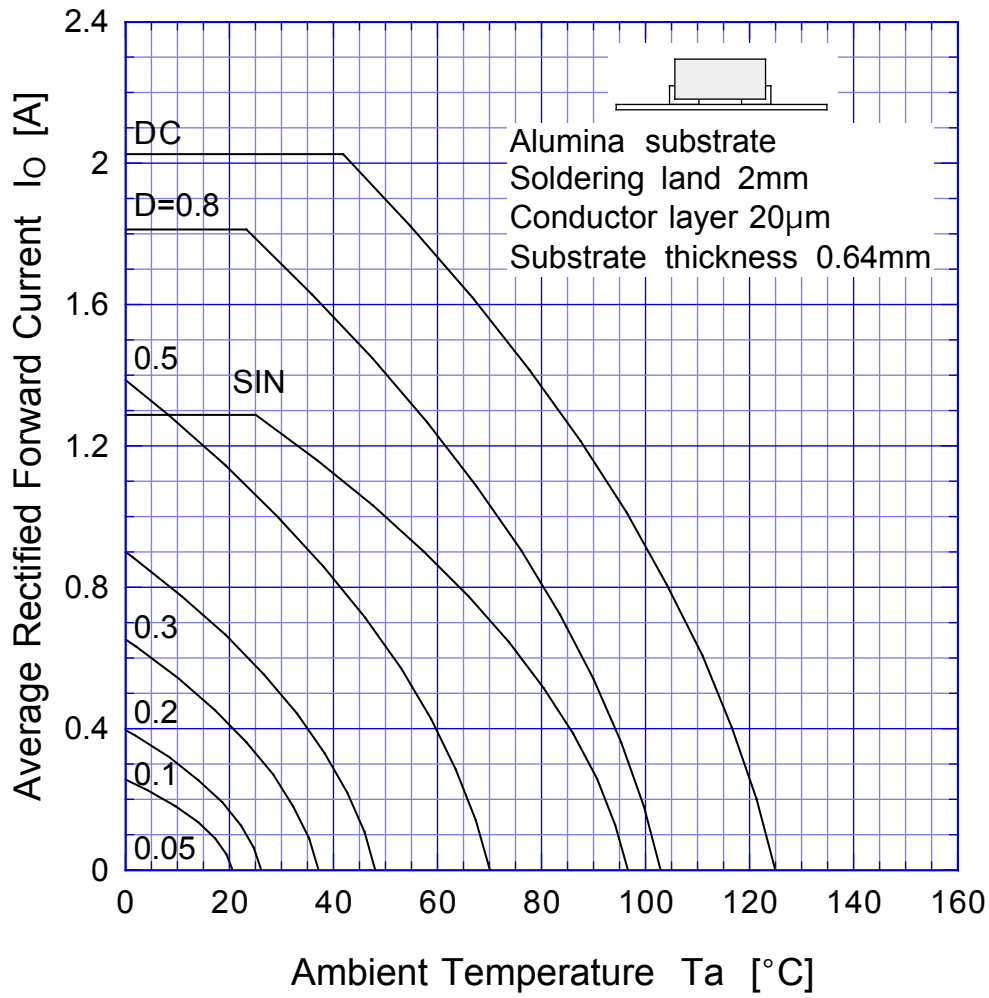


$T_j = 125^\circ\text{C}$

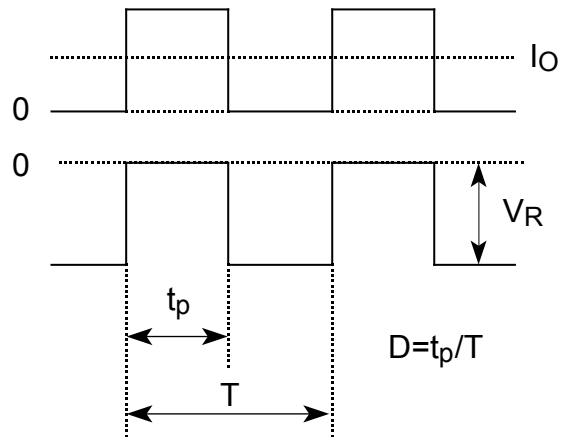


M1FP3

Derating Curve

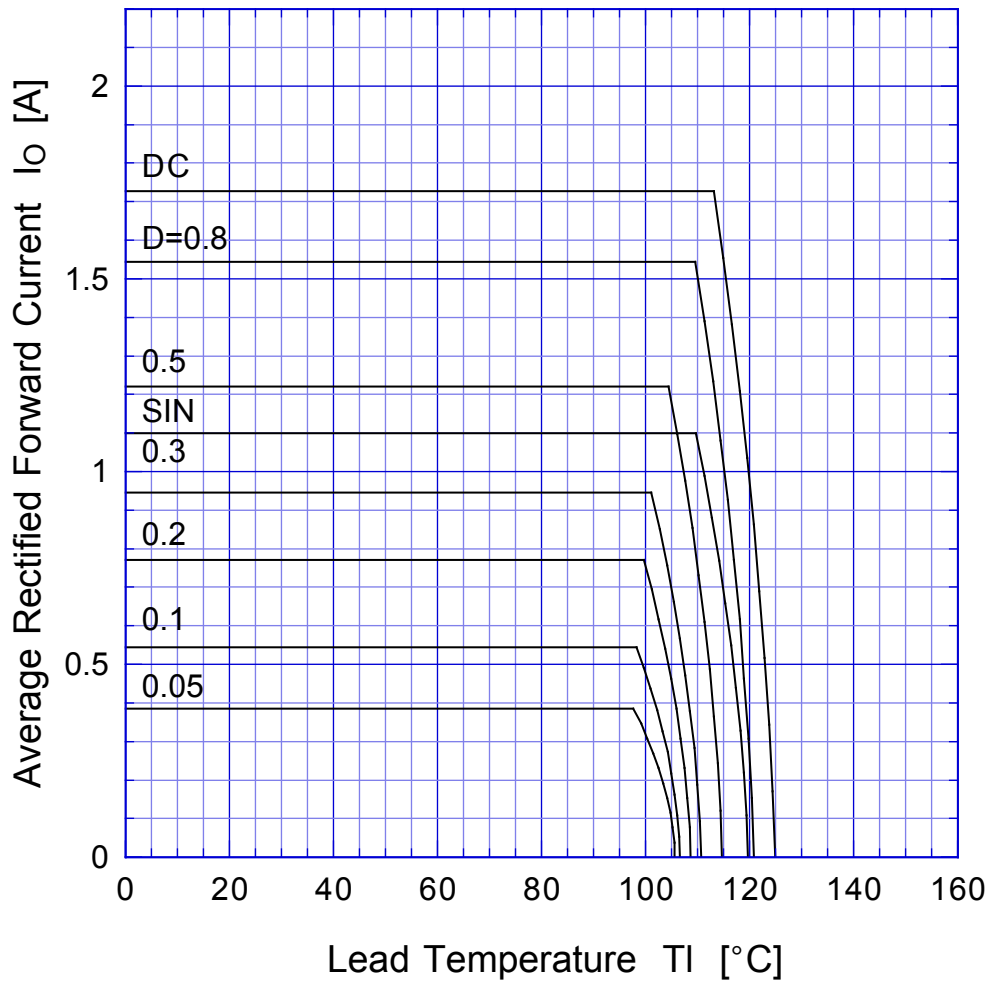


$V_R = 15V$



M1FP3

Derating Curve



$V_R = 15V$



M1FP3

Peak Surge Forward Capability

