

SHINDENGEN

Super Fast Recovery Rectifiers

Single

M1FL20U

200V 1.1A

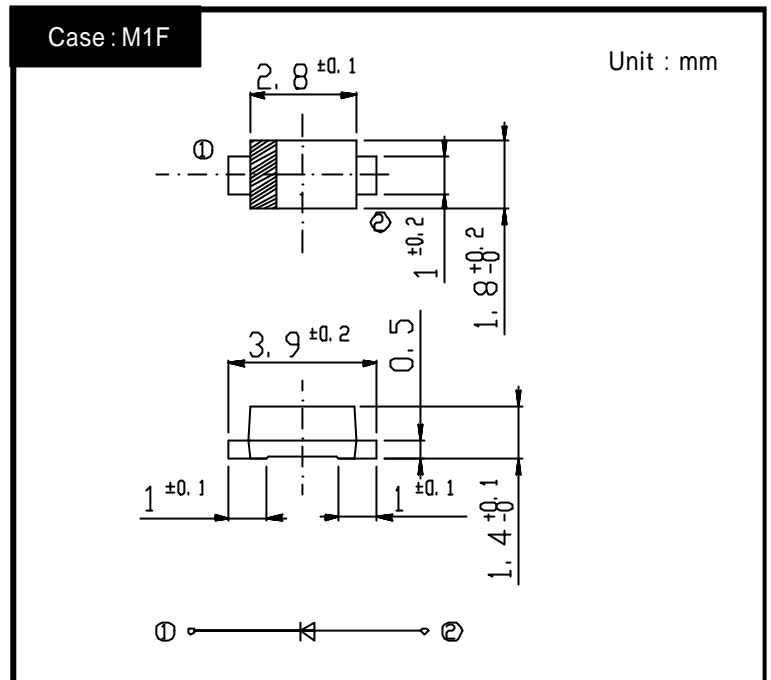
FEATURES

Small SMT
Low noise
trr35ns

APPLICATION

Switching power supply
DC/DC converter
Free Wheel
Home Appliances, Office Equipment
Telecommunication, Factory Automation

OUTLINE DIMENSIONS



RATINGS

Absolute Maximum Ratings (If not specified Tl=25)

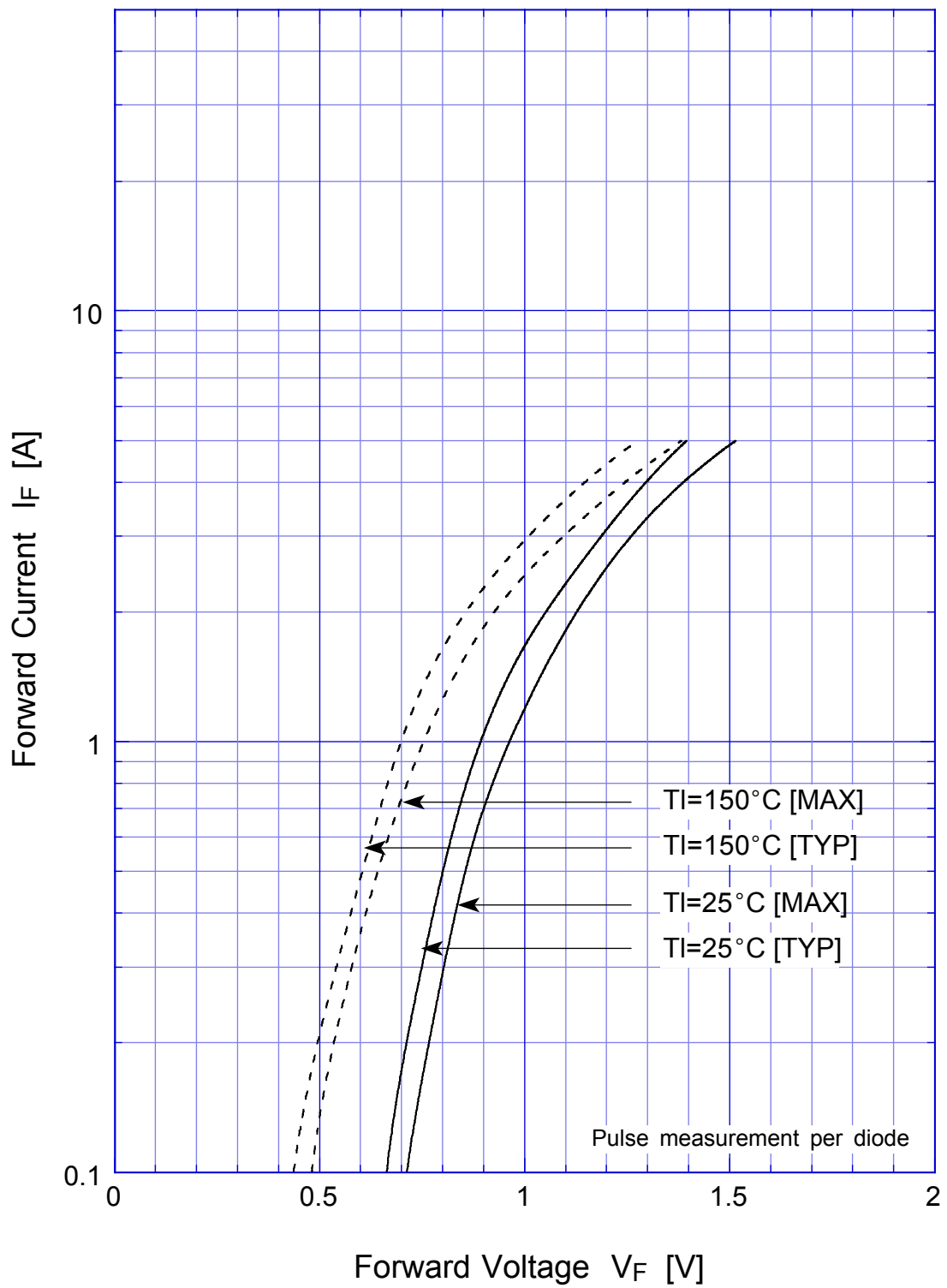
| Item | Symbol | Conditions | Ratings | Unit |
|-----------------------------------|------------------|--|-----------|------|
| Storage Temperature | Tstg | | -55 ~ 150 | |
| Operating Junction Temperature | Tj | | 150 | |
| Maximum Reverse Voltage | V _{RM} | | 200 | V |
| Average Rectified Forward Current | I _O | 50Hz sine wave, R-load, Ta=25 On alumina substrate | 1.1 | A |
| | | 50Hz sine wave, R-load, Ta=25 On glass-epoxy substrate | 0.75 | |
| Peak Surge Forward Current | I _{FSM} | 50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25 | 30 | A |

Electrical Characteristics (If not specified Tl=25)

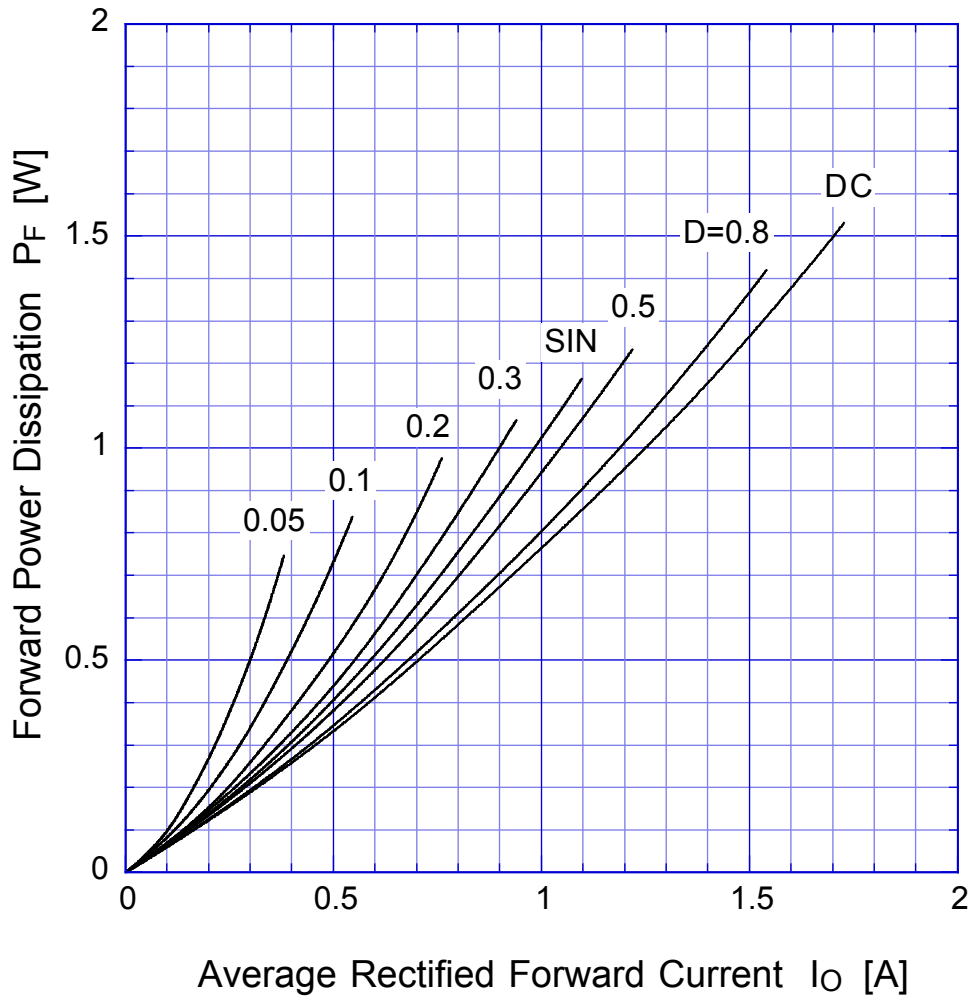
| Item | Symbol | Conditions | Ratings | Unit |
|-----------------------|-----------------|--|----------|------|
| Forward Voltage | V _F | I _F =1.1A, Pulse measurement | Max.0.98 | V |
| Reverse Current | I _R | V _R =200V, Pulse measurement | Max.10 | μA |
| Reverse Recovery Time | t _{rr} | I _F =0.5A, I _R =1A | Max.35 | ns |
| Thermal Resistance | j-l | junction to lead | Max.20 | /W |
| | j-a | junction to ambient On alumina substrate | Max.108 | |
| | | junction to ambient On glass-epoxy substrate | Max.186 | |

M1FL20U

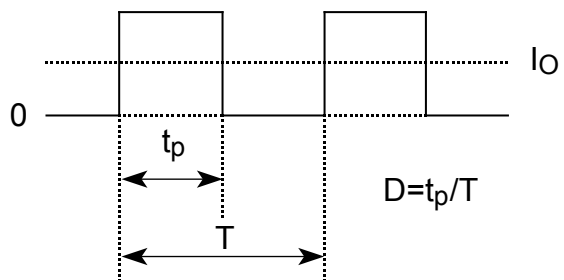
Forward Voltage



M1FL20U Forward Power Dissipation

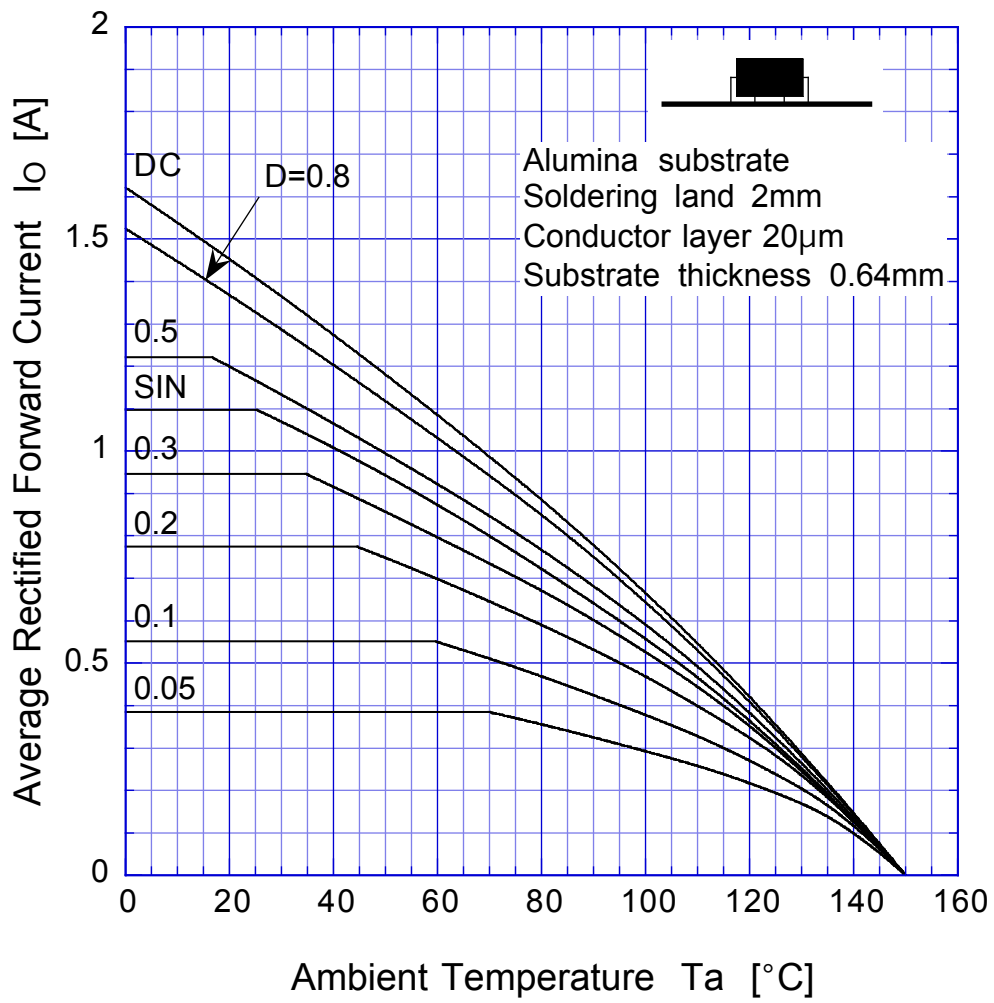


$T_j = 150^\circ\text{C}$



M1FL20U

Derating Curve

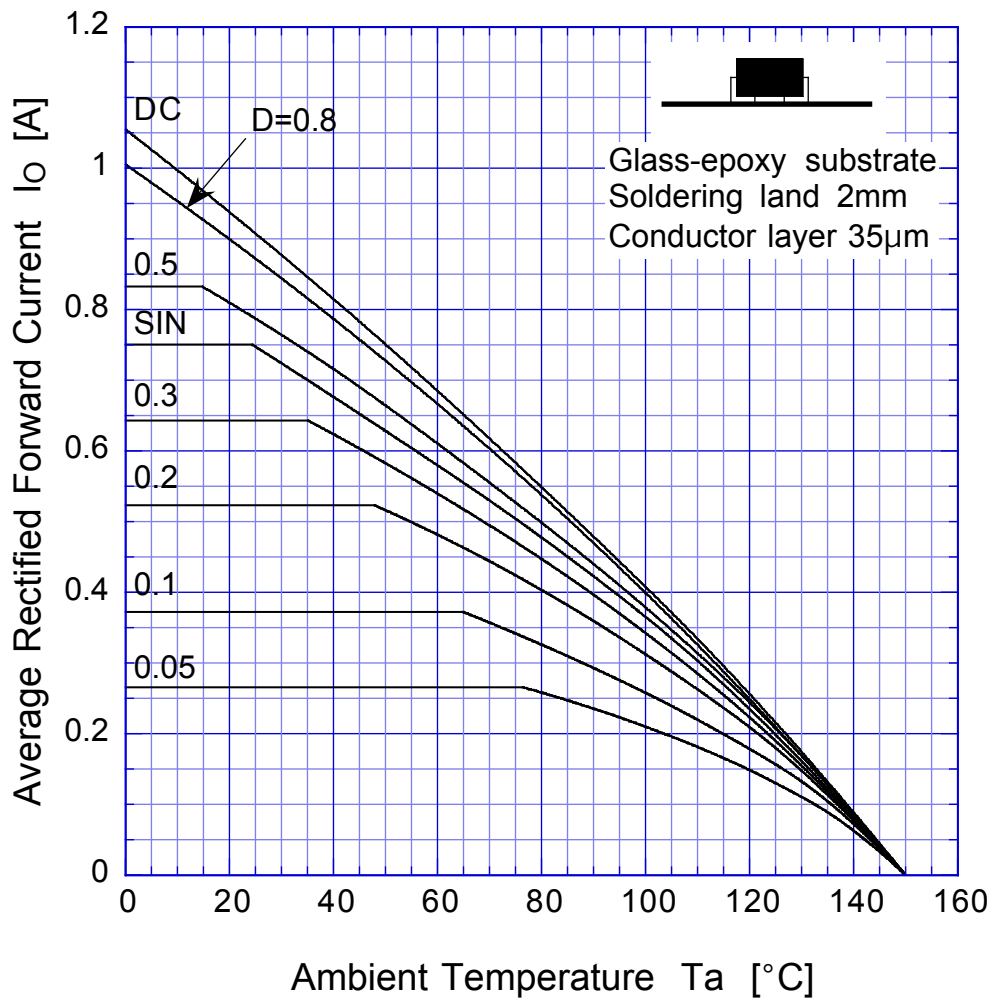


$$V_R = V_{RM}$$

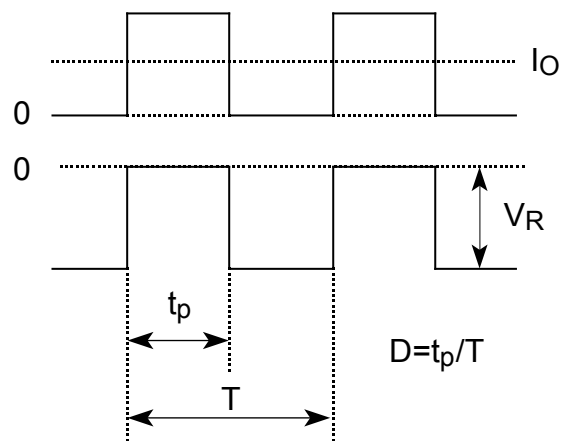


M1FL20U

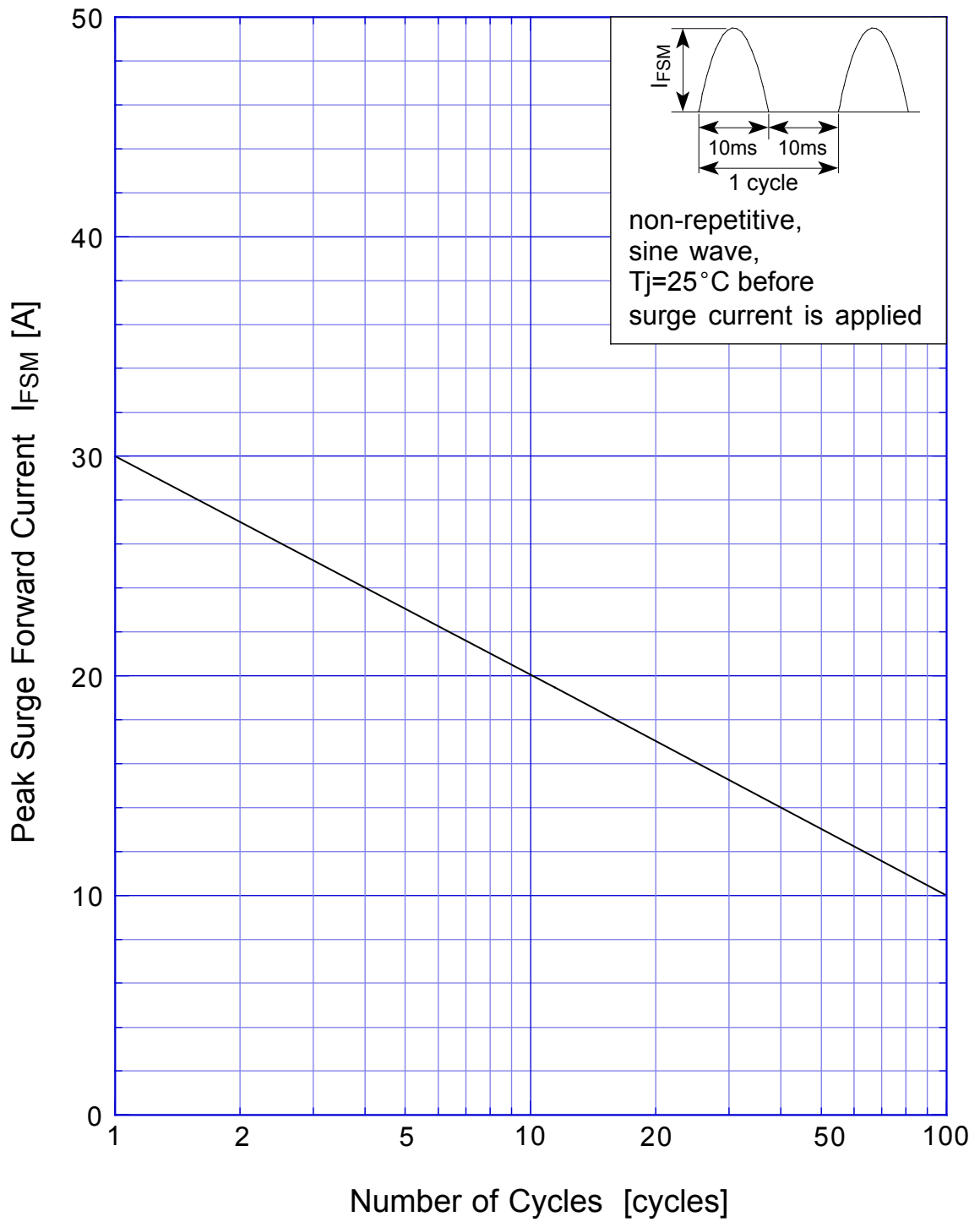
Derating Curve



$$V_R = V_{RM}$$



M1FL20U Peak Surge Forward Capability



M1FL20U Junction Capacitance

