

3.0 A Surface Mount Fast Recovery Rectifier
Rectifier Reverse Voltage 50 to 800V



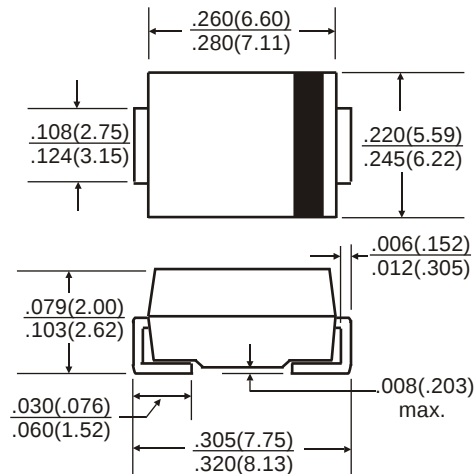
SMC / DO-214AB

Features

- Ideal for surface mounted applications
- Fast switching for high efficiency
- High current capability and low Forward Voltage Drop
- Surge overload rating to 100A peak
- Low reverse leakage current
- Plastic material has UL flammability classification 94V-0

Mechanical Data

Case: Molded plastic
Terminals: Solder plated solderable per MIL-STD-202, Method 208
Polarity: Cathode indicated with color band
Weight: 0.21 grams (approx)



All dimensions inches and (millimeters)

Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.
For Capacitive load derate current by 20%.

Parameter	Symbol	FR3A	FR3B	FR3D	FR3G	FR3J	FR3K	unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	V
Maximum RMS bridge input voltage	VRMS	35	70	140	280	420	560	v
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	v
Maximum average forward rectified output current at TL =75°C	IF(AV)	3.0						A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM	100						A
Maximum reverse recovery time TJ=25°C	Trr	150				250	500	nS
Typical thermal resistance per element	ReJA	15						°C/W
Typical junction capacitance per element	Cj	28						pF
Operating junction and storage temperature range	TJ, TSTG	-55 to + 150						°C

Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.
For Capacitive load derate by 20 %.

Parameter	Symbol	FR3A	FR3B	FR3D	FR3G	FR3J	FR3K	Unit
Maximum instantaneous forward voltage drop per leg at 3.0A	VF	1.3						V
Maximum DC reverse current at rated TA =25°C DC blocking voltage per element TA = 125 °C	IR	10 250						μA

Rating and Characteristic Curves ($T_A = 25^\circ\text{C}$ Unless otherwise noted) FR3A thru FR3K

Fig. 1 Reverse Recovery Time and Test Circuit Diagram

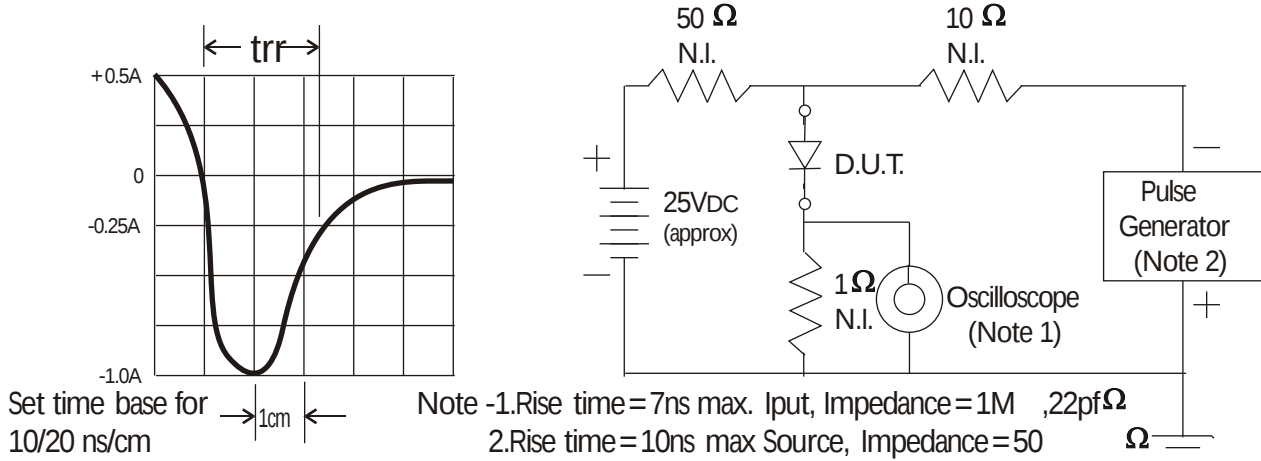


Fig. 2 Derating Curve for Output Rectified Current

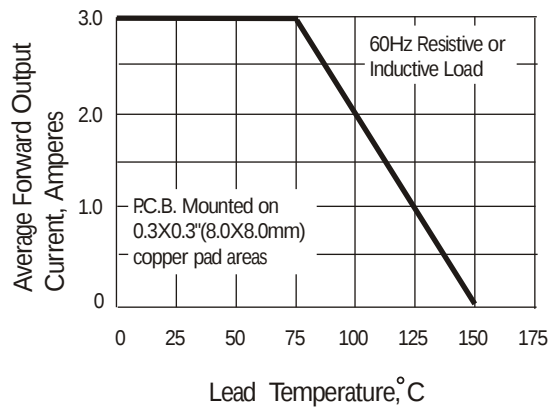


Fig. 3 Peak Forward Surge Current

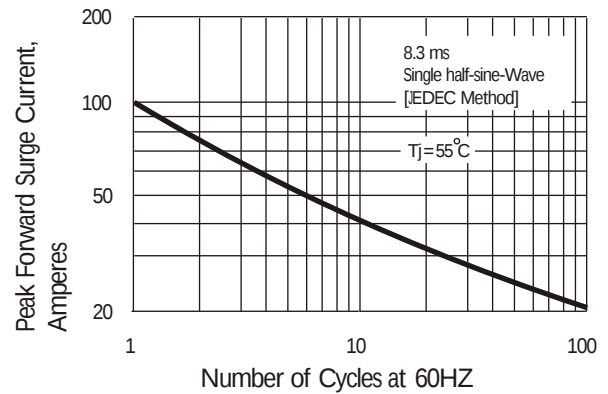


Fig. 4 Typical Instantaneous Forward Characteristics

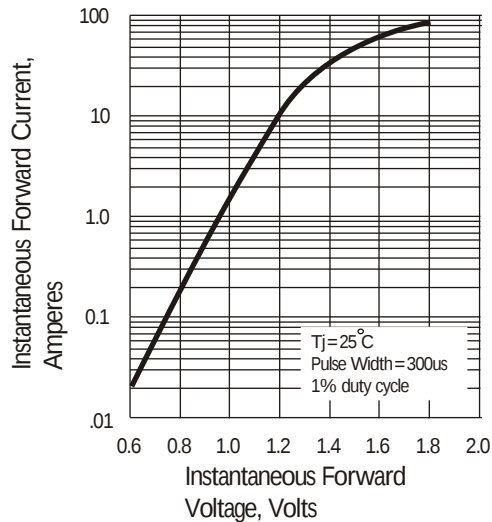


Fig. 5 Typical Reverse Characteristics

