



# FMSK1020C-DG THRU FMSK10200C-DG

Schottky Barrier Rectifier

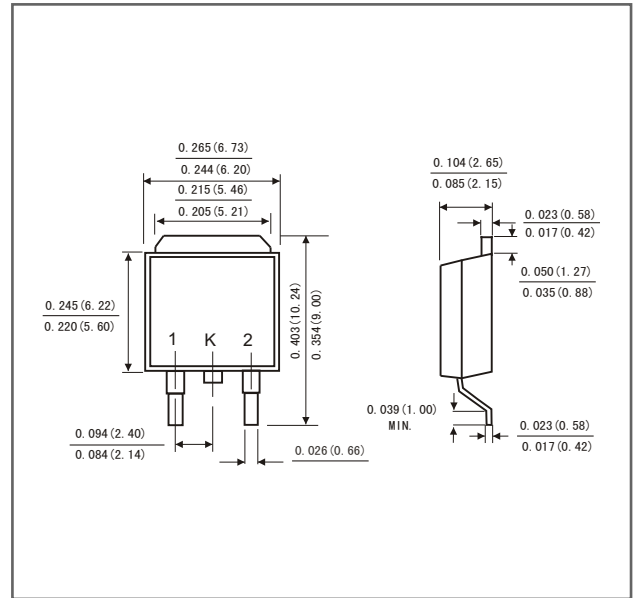
**Reverse Voltage: 20 to 200 Volts**  
**Forward Current: 1.0 Ampere**

## Package outline

### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Guard ring for overvoltage protection
- Low power loss, high efficiency
- High current capability, Low forward voltage drop
- Single rectifier construction
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed:  
260°C/10 seconds at terminals, 0.25"(6.35mm)from case
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

### TO-252



Dimensions in inches and (millimeters)

### Mechanical data

- Case: JEDEC TO-252 molded plastic body
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: As marked
- Mounting Position: Any
- Weight: 0.014 ounce, 0.4 grams

### Maximum Ratings And Electrical Characteristics

- Ratings at 25°C ambient temperature unless otherwise specified.
- Single phase, half wave, resistive or inductive load.
- For capacitive load, derate by 20%.

Type Number	Symbols	FMSK 1020 C-DG	FMSK 1040 C-DG	FMSK 1045 C-DG	FMSK 1050 C-DG	FMSK 1060 C-DG	FMSK 1080 C-DG	FMSK 10100 C-DG	FMSK 10150 C-DG	FMSK 10200 C-DG	Units
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	40	45	50	60	80	100	150	200	Volts
Maximum RMS voltage	V <sub>RMS</sub>	14	28	31.5	35	42	56	70	105	140	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	20	40	45	50	60	80	100	150	200	Volts
Maximum average forward rectified current (see Fig.1)	I <sub>(AV)</sub>	10.0									Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	150.0									Amps
Maximum instantaneous forward voltage at 10.0 A(Note 1)	V <sub>F</sub>	0.60		0.75		0.85		0.90	0.95		Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	I <sub>R</sub>	0.2									mA
		15		50							
Typical thermal resistance (Note 2)	R <sub>θJC</sub>	2.5									°C/W
Operating junction temperature range	T <sub>J</sub>	-65 to +150									°C
Storage temperature range	T <sub>STG</sub>	-65 to +150									°C

Notes: 1.Pulse test: 300 μ s pulse width,1% duty cycle  
 2.Thermal resistance from junction to case

## Rating and characteristic curves

FIG.1-FORWARD CURRENT DERATING CURVE

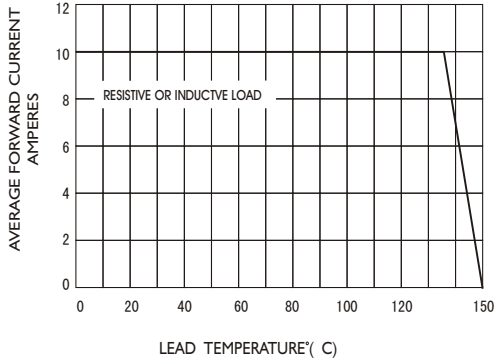


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

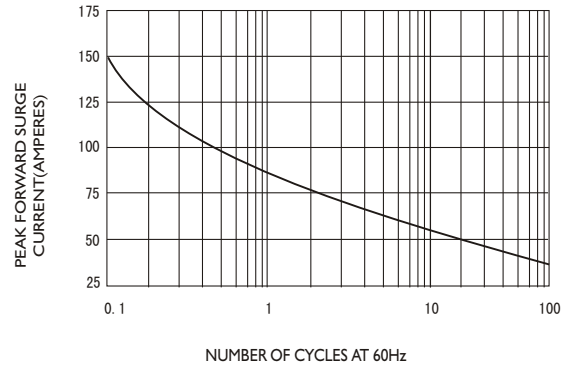


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

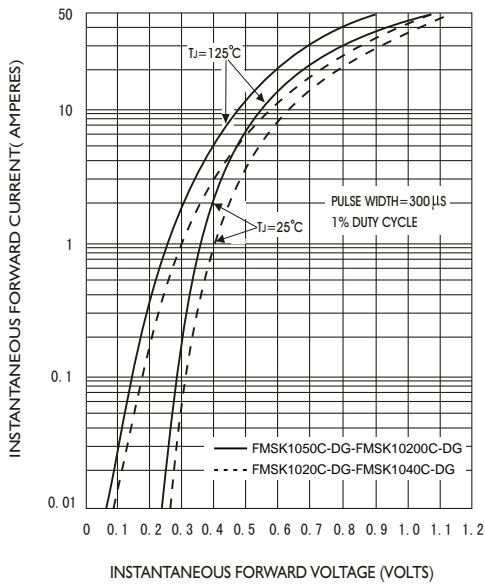


FIG.4-TYPICAL REVERSE CHARACTERISTICS

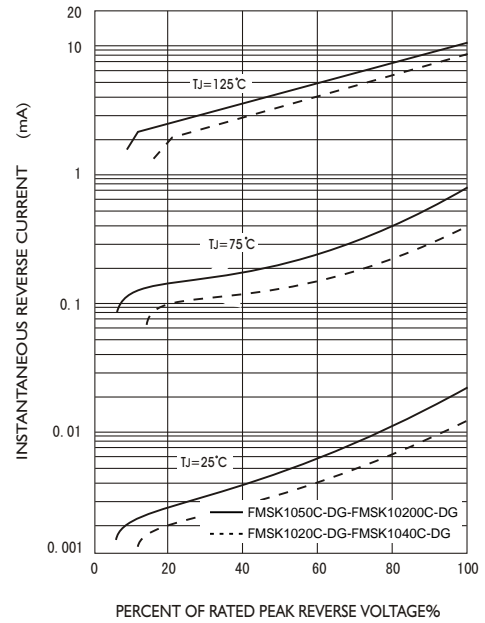


FIG.5-TYPICAL JUNCTION CAPACITANCE

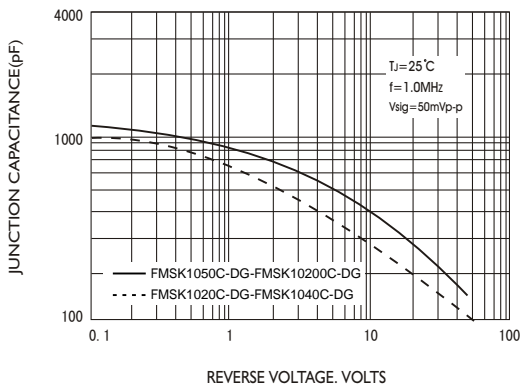


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

