

SD10PU200

High Current Density Surface Mount
Schottky Rectifier

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Maximum Ratings (Tc=25°C unless otherwise noted)

Parameter	Symbol	SD10PU200	Unit
Maximum repetitive peak reverse voltage	VRRM	200	V
Working peak reverse voltage	VRWM	140	V
Maximum DC blocking voltage	VDC	200	V
Maximum average forward rectified current	IF(AV)	10	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	160	A
Non-repetitive avalanche energy at 25 °C IAS = 2 A per diode	EAS	30	m'J
Operating junction temperature range	TJ	-55 to +150	°C
Storage temperature range	TSTG	-55 to +150	°C

Note:

- (1) Mounted on 30 mm x 30 mm Al P.C.B. with 50 mm x 25 mm x 100 mm fin heat sink
- (2) Free air, mounted on recommended copper pad area

Electrical characteristics (Tc=25°C unless otherwise noted)

Parameter	Symbol	Value		Unit
		Typical	Max	
Instantaneous forward voltage at IF=5A, Tj=25°C at IF=10A, Tj=25°C at IF=5A, Tj=125°C at IF=10A, Tj=125°C	VF	0.81 0.90 0.67 0.78	0.87 1.05 0.72 0.88	V
Maximum reverse current per leg Tj=25°C	IR	10		u'A
at working peak reverse voltage Tj=125°C		2		m'A

Thermal characteristics (Tc=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Typical thermal resistance	RθJA	90	°C/W
	RθJM	4	

Notes:

- (1) Mounted on 30 mm x 30 mm Al P.C.B.; thermal resistance RθJM - junction to mount
- (2) Free air, mounted on recommended copper pad area

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■ Characteristics Curve

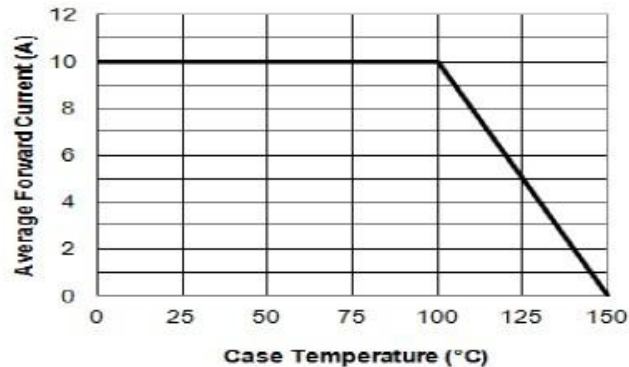


FIG.1-FORWARD CURRENT DERATING CURVE

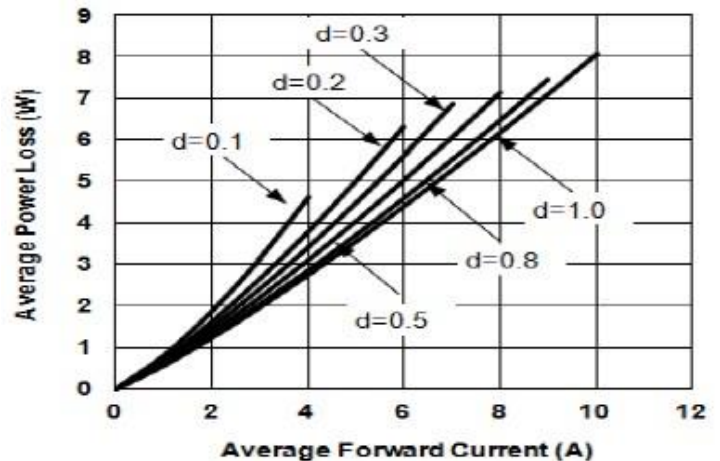


FIG.2-FORWARD POWER LOSS CHARACTERISTICS

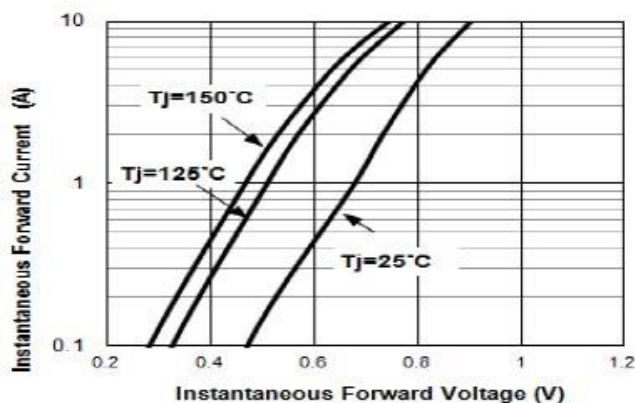


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

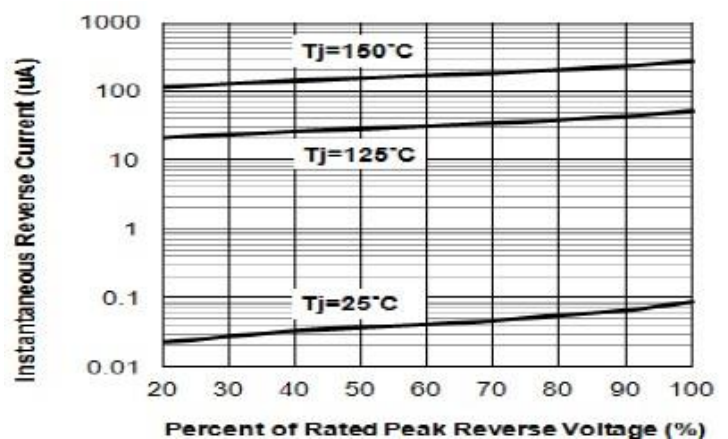


FIG.4-TYPICAL REVERSE CHARACTERISTICS

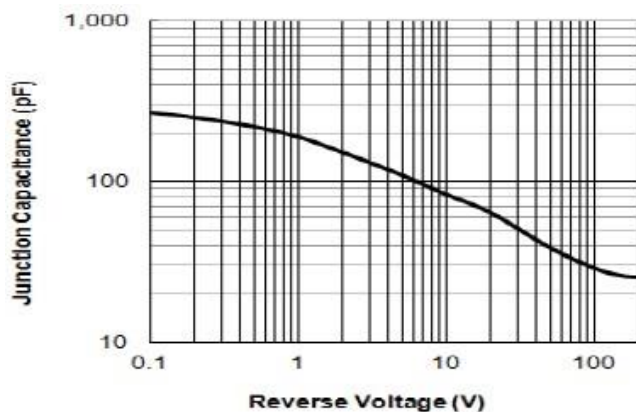


FIG.5-TYPICAL JUNCTION CAPACITANCE

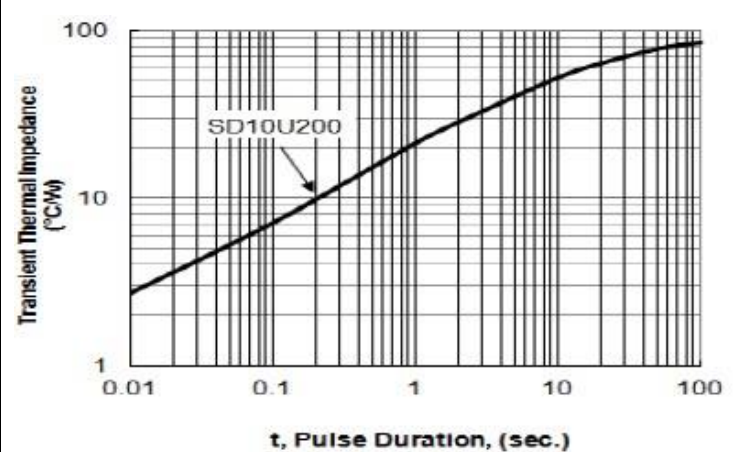


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

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