



S10A THRU S10M

DIODE

10A SCHOTTKY BARRIER RECTIFIER

■ DESCRIPTION

The UTC **S10A THRU S10M** is a 2.0A Schottky Barrier Rectifiers, it uses UTC's advanced technology to provide customers with low forward voltage drop, low reverse current and high efficiency, etc.

The UTC **S10A THRU S10M** is suitable for free wheeling diodes, high frequency inverters, low voltage and polarity protection diodes.

■ FEATURES

- * Low leakage
- * Ideal for automated placement
- * Glass passivated chip junction
- * Low forward voltage drop
- * Low leakage current
- * High forward surge capability

■ SYMBOL



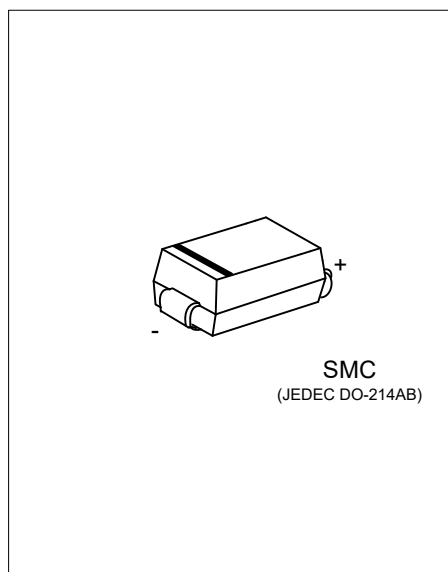
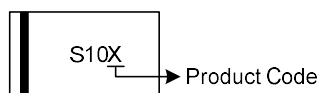
■ ORDERING INFORMATION

Ordering Number	Package	Pin Assignment		Packing
		1	2	
S10XG-SMC-R	SMC	K	A	Tape Reel

Note: Pin Assignment: K: Cathode A: Anode

S10XG-SMC-R (1) Packing Type (2) Package Type (3) Green Package (4) Product Code	(1) R: Tape Reel (2) SMC: SMC (3) G: Halogen Free and Lead Free (4) refer to ABSOLUTE MAXIMUM RATINGS
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■ MARKING



■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C, unless otherwise specified.)

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitance load, derate current by 20%.

PARAMETER	SYMBOL	RATINGS							UNIT
		S10A	S10B	S10D	S10G	S10J	S10K	S10M	
DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
RMS Voltage	V _{RMS}	35	70	140	210	420	560	700	V
Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Average Forward Rectified Current	I _F	10							A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	300							A
Operating Junction Temperature Range	T _J	-55 ~ +150							°C
Storage Temperature Range	T _{STG}	-55 ~ +150							°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ THERMAL DATA

PARAMETER	SYMBOL	RATINGS	UNIT
Typical Thermal Resistance	θ _{JL}	25	°C/W

Notes: Units mounted on P.C.B. 5.0 x 5.0 mm (0.013 mm thick) land areas.

■ ELECTRICAL CHARACTERISTICS (T_J =25°C, unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	RATINGS							UNIT
			S10A	S10B	S10D	S10G	S10J	S10K	S10M	
Maximum Instantaneous Forward Voltage	V _F	I _F =10A	1.1	1.1	1.1	1.1	1.1	1.1	1.1	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R	T _J =25°C	5.0	5.0	5.0	5.0	5.0	5.0	5.0	μA
		T _J =125°C	250	250	250	250	250	250	250	μA
Typical Junction Capacitance	C _J	V _R =4V, f=1MHz	60	60	60	60	60	60	60	pF

TYPICAL CHARACTERISTICS

Fig 1. Typical Forward Current Derating Curve

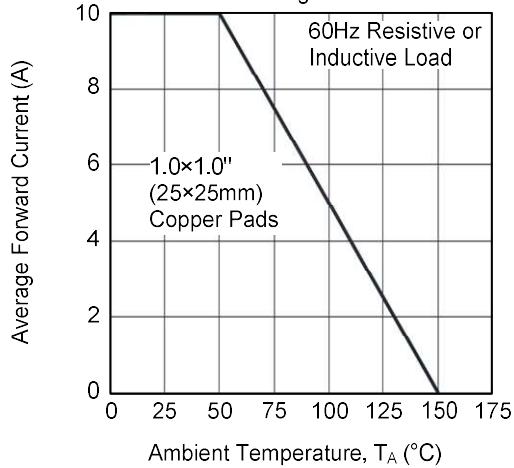


Fig 2. Maximum Non-Repetitive Peak Forward Surge Current

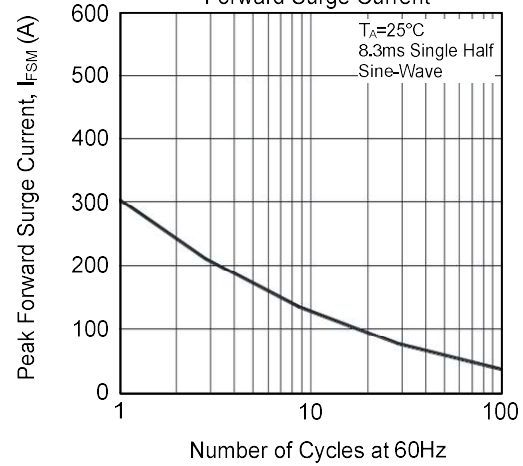


Fig 3. Typical Instantaneous Forward Characteristics

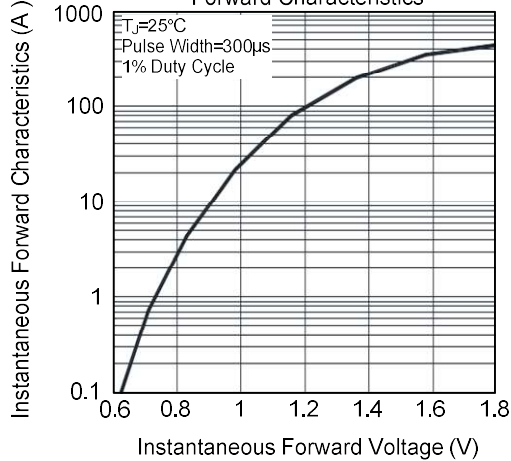


Fig 4. Typical Reverse Characteristics

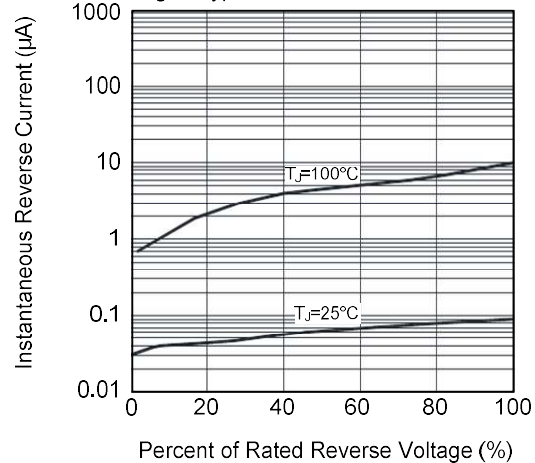
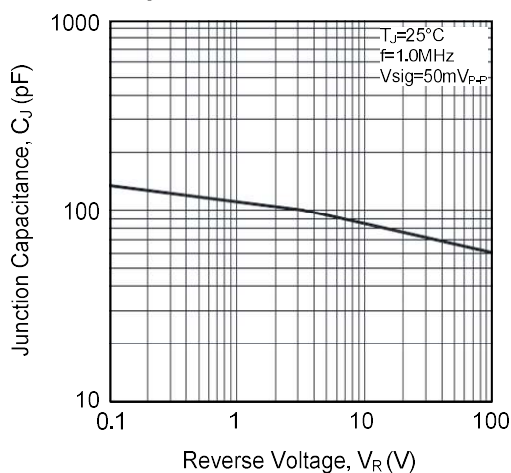


Fig 5. Typical Junction Capacitance



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