PHY

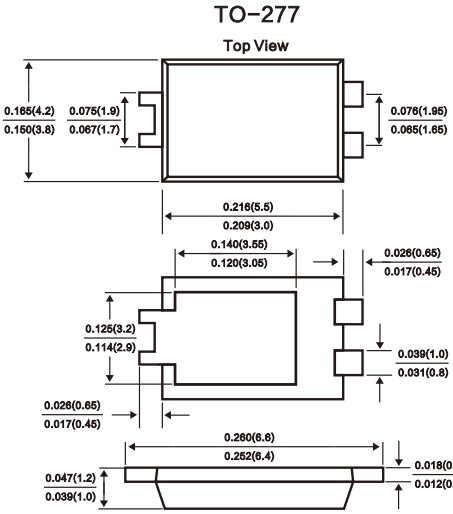
Schottky Barrier Rectifiers

PS1035L THRU PS10100L

35-100V 10A

FEATURES

* Plastic package has underwriters laboratory Flammability classification 94V-0
* Low power loss,high efficiency
* For use in low voltage high frequency inverters, free wheeling,and polarity protection applications
* Guarding for over voltage protection
* High temperature soldering guaranteed: 260 C/10 seconds at terminals



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: JEDEC TO-227 molded plastic body over passivated chip
Terminals: Solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight:0.006 ounce, 0.02 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Parameter symbol	Symbol	PS1035L	PS1045L	PS1050L	PS1060L	PS1080L	PS10100L	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	35	45	50	60	80	100	V
Maximum RSM voltage	V_{RSM}	35	45	50	60	80	100	V
Maximum DC blocking voltage	V_{DC}	35	45	50	60	80	100	V
Maximum average forward rectified current 0.375" (9.5mm) lead length (See fig. 1)	IF(AV)	10.0						A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM1}	175						A
Thermal resistance, junction to ambient	RθJA	40						C/W
Operating storage temperature range	TJ	–55 to +150						C
storage temperature range	TSTG	–55 to +175						C

Electrical Characteristics Ratings at 25 C ambient temperature unless otherwise specified.

Parameter symbol	Symbol	PS1035L	PS1045L	PS1050L	PS1060L	PS1080L	PS10100L	Unit
Maximum instantaneous forward voltage at 10.0A	VF	0.55		0.60	0.70	0.90		V
Maximum DC reverse current TC = 25 C	Ir	200						uA
Maximum DC reverse current TC = 100 C	Ir	1000						uA
Typical junction capacitance at 4.0V, 1MHz	CJ	500			380			PF

Notes:

1. Thermal resistance from junction to ambient at 0.375” (9.5mm) lead length, P.C.B. mounted

Fig. 1 Forward Current Derating Curve

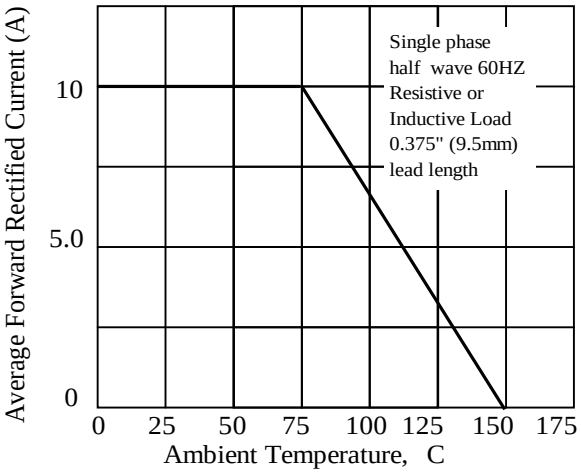


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

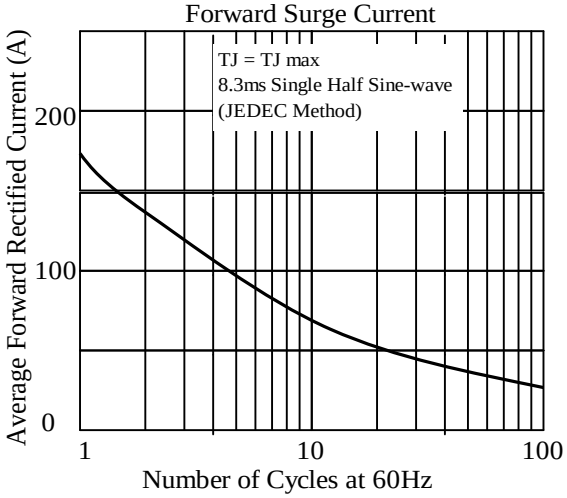


Fig 3. Typical Instantaneous Forward Characteristics

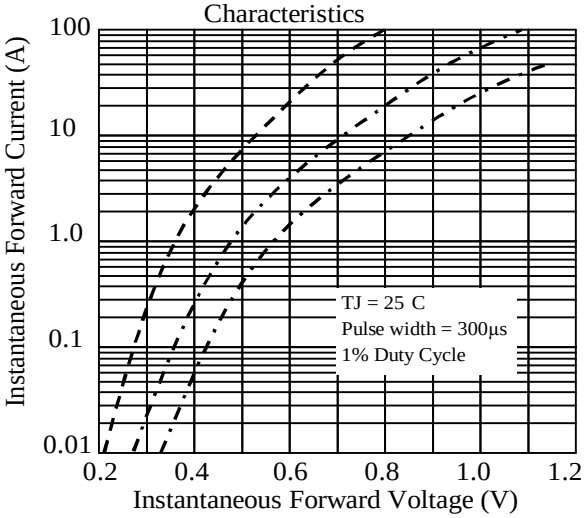


Fig 4. Typical Reverse Characteristics

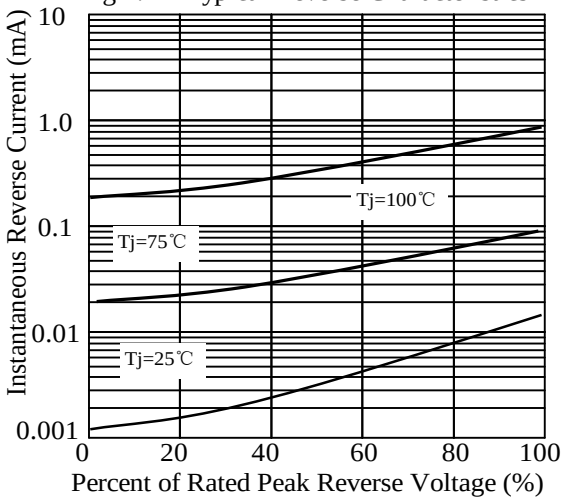


Fig 5. typical transient thermal impedance

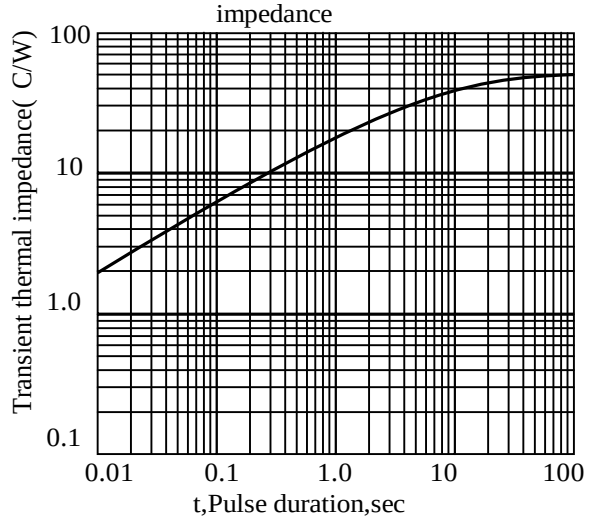


Fig 6. Typical Junction Capacitance