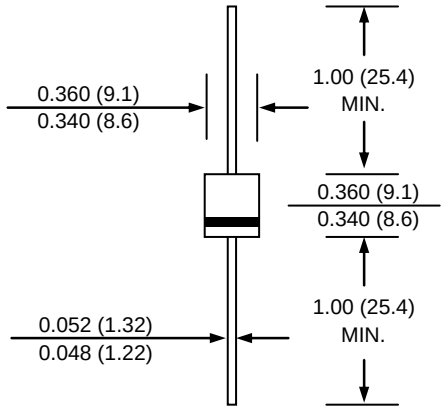
SYNSEMI SEMICONDUCTOR

P800A - P800K

SILICON RECTIFIER DIODES

PRV : 50 - 800 Volts
Io : 8.0 Amperes

D6



Dimensions in inches and (millimeters)

FEATURES :

* High current capability
* High surge current capability
* High reliability
* Low reverse current
* Low forward voltage drop
* Pb / RoHS Free

MECHANICAL DATA :

* Case : Void-free molded plastic body
* Epoxy : UL94V-O rate flame retardant
* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
* Polarity : Color band denotes cathode end
* Mounting position : Any
* Weight : 2.1 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

RATING	SYMBOL	P800A	P800B	P800D	P800G	P800J	P800K	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	V
Maximum Average Forward Current 0.375"(9.5mm) Lead Length Ta = 50 °C	$I_{F(AV)}$	8.0						A
Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	400						A
Maximum Instantaneous Forward Voltage at I_F = 8 A	V_F	1.0						V
Maximum DC Reverse Current Ta = 25 °C	I_R	5.0						μA
at rated DC Blocking Voltage Ta = 100 °C	$I_{R(H)}$	1.0						mA
Typical junction capacitance at 4.0V, 1MHz	C_J	150						pF
Typical Thermal Resistance (1)	$R\theta JA$	20						°C/W
Junction Temperature Range	T_J	- 50 to + 150						°C
Storage Temperature Range	T_{STG}	- 50 to + 150						°C

Note :

(1) Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5mm) lead length, P.C.B. mounted with 1.1" x 1.1" (30 x 30mm) copper pads

RATING AND CHARACTERISTIC CURVES (P800A - P800K)

FIG.1 - MAXIMUM FORWARD CURRENT DERATING CURRENT

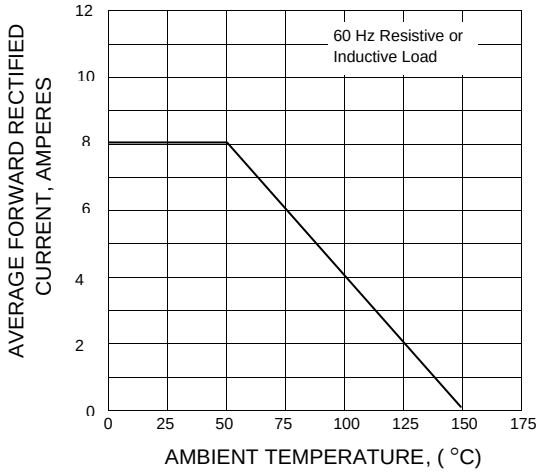


FIG.2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

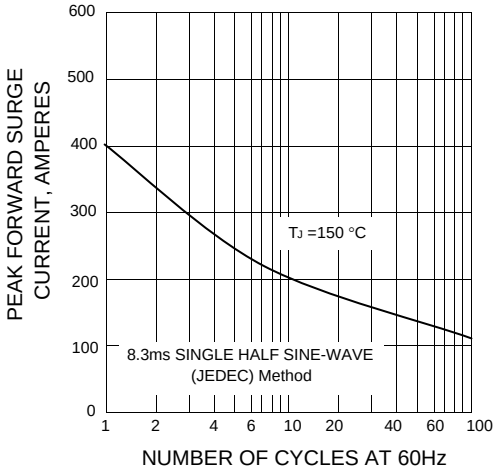


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

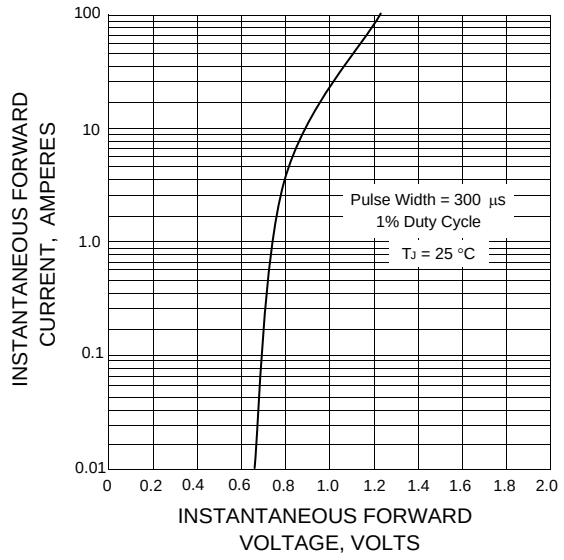


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

