1H1 THRU 1H8

Reverse Voltage - 50 to 1000 Volts Forward Current - 1.0 Ampere

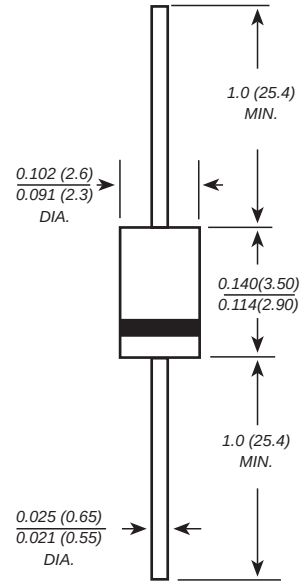
HIGH EFFICIENCY RECTIFIERS

Features

R-1

RoHS COMPLIANT

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- High speed switching for high efficiency
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed: 250°C/10 seconds,0.375”(9.5mm) lead length, 5 lbs. (2.3kg) tension



Dimensions in inches and (millimeters)

Mechanical Data

Case : JEDEC R-1 Molded plastic body
Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
Polarity : Polarity symbol marking on body
Mounting Position : Any
Weight : 0.007 ounce, 0.20 grams

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

parameter / Marking code	SYMBOLS	MDD 1H1	MDD 1H2	MDD 1H3	MDD 1H4	MDD 1H5	MDD 1H6	MDD 1H7	MDD 1H8	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	300	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	210	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	300	400	600	800	1000	V
Maximum average forward rectified current 0.375”(9.5mm) lead length at T_A=25°C	$I_{(AV)}$	1.0								A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	25.0								A
Maximum instantaneous forward voltage at 1.0A	V_F	1.0			1.3		1.7			V
Maximum DC reverse current T_A=25°C at rated DC blocking voltage T_A=100°C	I_R	5.0 100.0								μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	50					70			ns
Typical junction capacitance (NOTE 2)	C_J	15.0					12.0			pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	50.0								°C/W
Operating junction and storage temperature range	T_J,T_{STG}	-65 to +150								°C

Note:1.Reverse recovery condition I_F=0.5A,I_R=1.0A,Irr=0.25A
2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3.Thermal resistance from junction to ambient at 0.375”(9.5mm)lead length,P.C.B. mounted

Ratings And Characteristic Curves

FIG. 1- FORWARD CURRENT DERATING CURVE

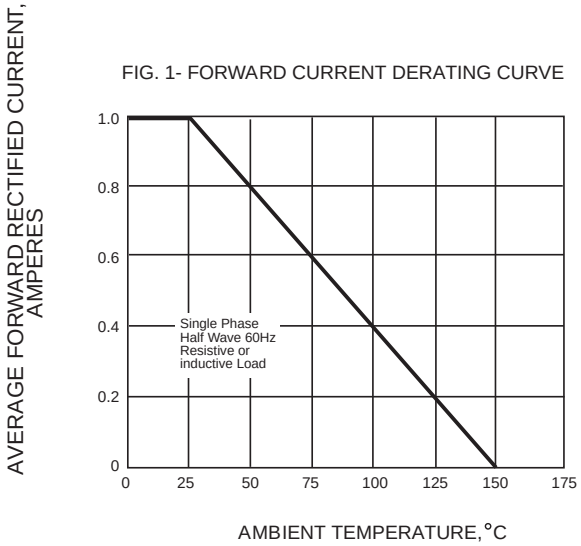


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

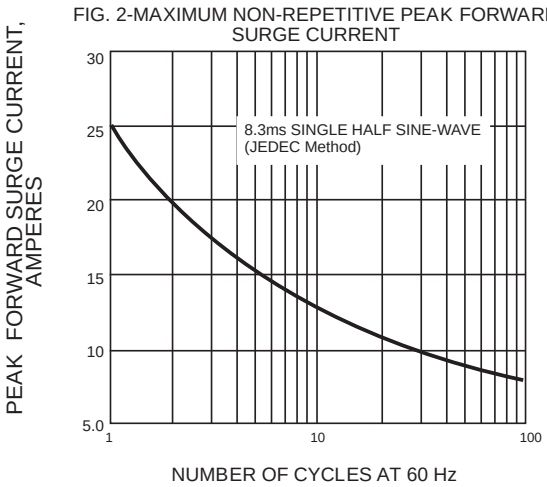


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

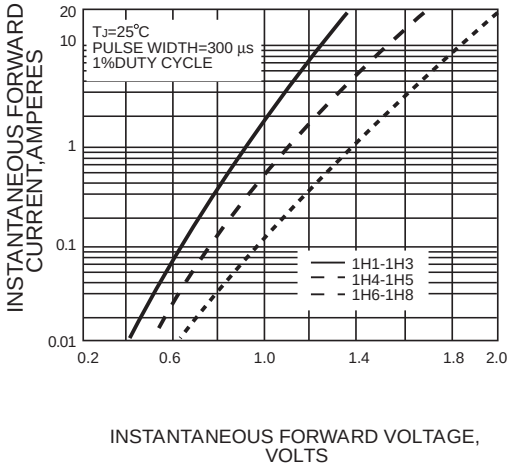


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

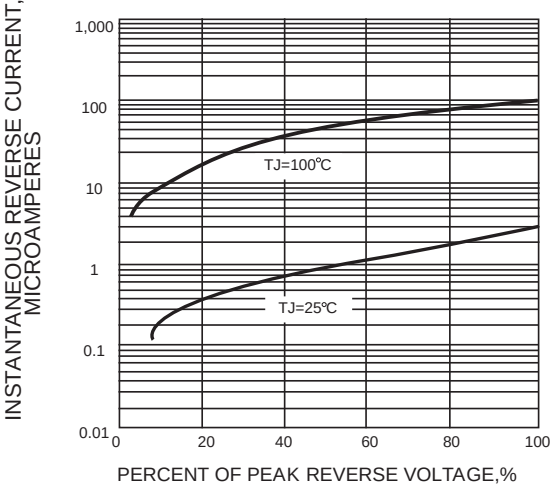


FIG. 5-TYPICAL JUNCTION CAPACITANCE

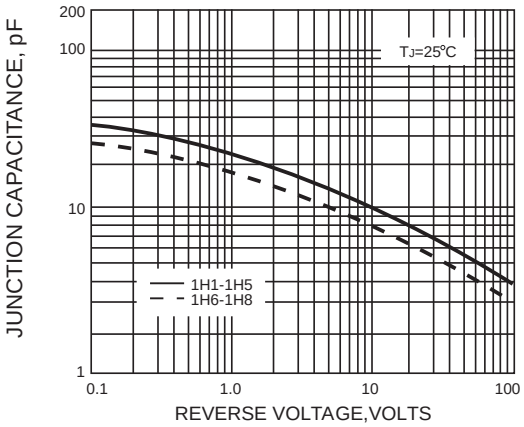
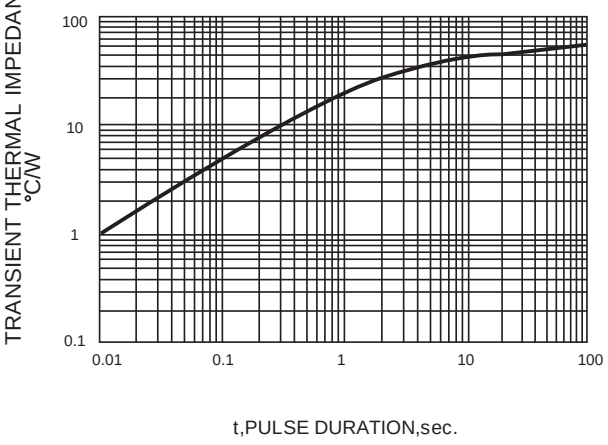


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



The curve above is for reference only.