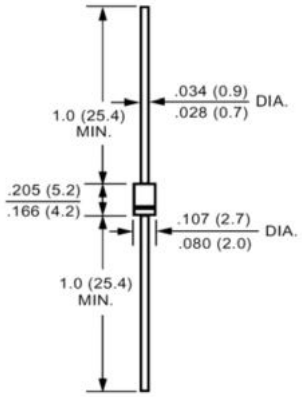
Rectifier Diodes, Fast Recovery

FEATURES:

Fast switching for high efficiency

High surge current capability



SPECIFICATION:

Case	Molded plastic, DO-41
Epoxy	UL 94V-0 rate flame retardant
Lead	Axial leads
Polarity	Colour band denotes cathode end
Mounting position	Any

Art. Nr.
RND 1N4936

Maximum Ratings and Electrical Characteristics

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

Parameter	Symbols	RND 1N4933	RND 1N4934	RND 1N4935	RND 1N4936	RND 1N4937	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	V
Maximum Average Forward Rectified Current 0.375" (9.5 mm) Lead Length at T_A = 50 °C	$I_{F(AV)}$	1					A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30					A
Maximum Forward Voltage at 1 A	V_F	1.2					V
Maximum Reverse Current at T_A = 25 °C Rated DC Blocking Voltage T_A = 125 °C	I_R	5 50					µA
Maximum Reverse Recovery Time [1]	t_{rr}	150					ns
Typical Thermal Resistance, Junction to Ambient [2]	$R_{\theta JA}$	55					°C/W
Typical Thermal Resistance, Junction to Lead [2]	$R_{\theta JL}$	25					°C/W
Operating Junction temperature range	T_j	- 55 to + 125					°C
Storage Temperature range	T_{stg}	- 55 to + 150					°C

1) Reverse recovery test conditions: I_F = 0.5 A, I_R = 1 A, I_{rr} = 0.25 A.

2) Thermal resistance from junction to ambient 0.375"(9.5 mm) lead length P.C.B mounted.

FIG.1: FORWARD CURRENT DERATING CURVE

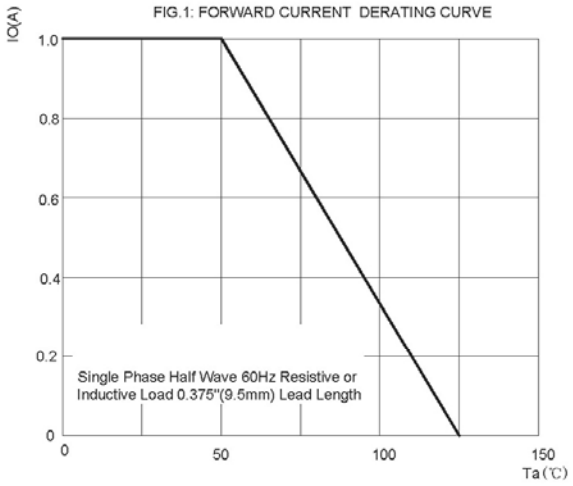


FIG.2:MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

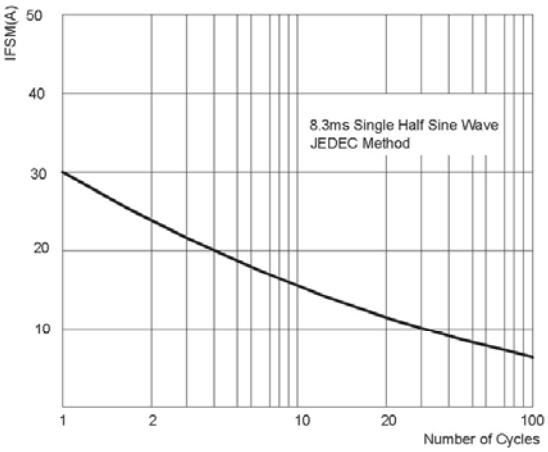


FIG.3: TYPICAL FORWARD CHARACTERISTICS

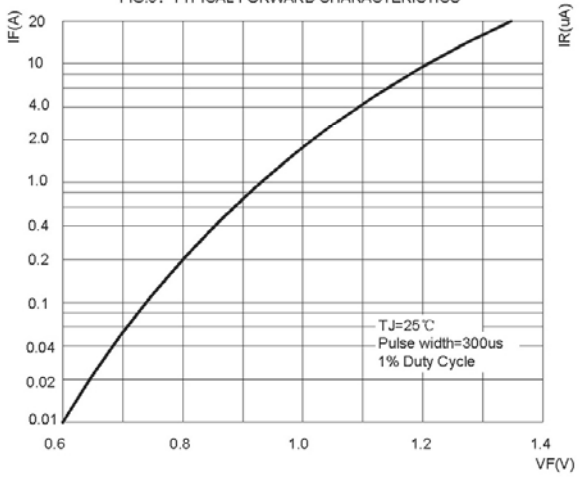


FIG.4: TYPICAL REVERSE CHARACTERISTICS