

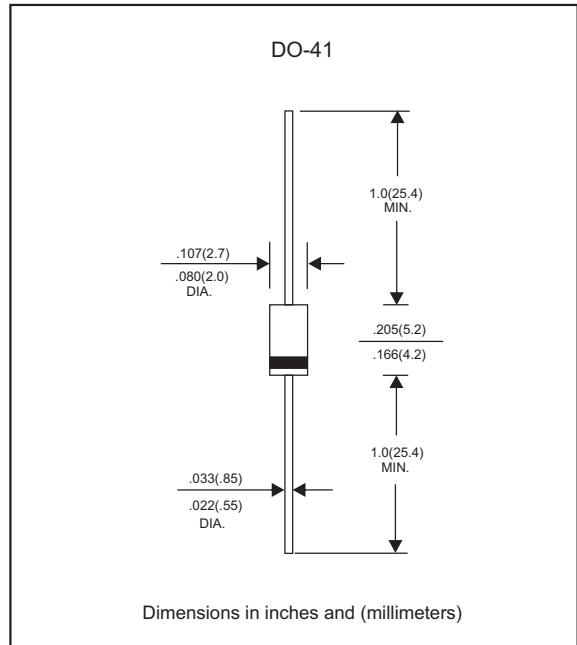
Features

- Axial lead type devices for through hole design
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- Guardring for overvoltage protection
- Ultra high-speed switching
- Silicon epitaxial planar chip, metal silicon junction
- Lead-free parts meet RoHS requirements

Mechanical data

- Epoxy : UL94-V0 rated flame retardant
- Case : Molded plastic, DO-41
- Lead : Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting Position : Any
- Weight : Approximated 0.33 gram

Package outline



Maximum ratings (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOLS	1N5817RLG	1N5818RLG	1N5819RLG	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	Volts
Maximum RMS voltage	V_{RMS}	14	21	28	Volts
Maximum continuous reverse voltage	V_R	20	30	40	Volts
Maximum average forward rectified current	I_O	1.0			Amps
Non-repetitive peak forward surge current 8.3ms single half sine-wave	I_{FSM}	30			Amps
Typical junction capacitance (Note 1)	C_J	110			pF
Operating junction temperature range	T_J	-55 to +125			$^\circ\text{C}$
Storage temperature range	T_{STG}	-65 to +175			$^\circ\text{C}$

Electrical characteristics (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOLS	1N5817RLG	1N5818RLG	1N5819RLG	UNITS
Maximum instantaneous forward voltage at $I_F=1.0\text{A}$	V_F	0.45	0.55	0.60	Volts
Maximum reverse leakage current at rated V_R	I_R		0.5 10		mA mA

Thermal characteristics

PARAMETER	SYMBOLS	1N5817RLG	1N5818RLG	1N5819RLG	UNITS
Typical thermal resistance junction to ambient	$R_{\theta JA}$	80			$^\circ\text{C} / \text{W}$

Note 1: Measured at 1 MHz and applied reverse voltage of 4.0 VDC

Rating and characteristic curves

FIG.1-TYPICAL FORWARD CHARACTERISTICS

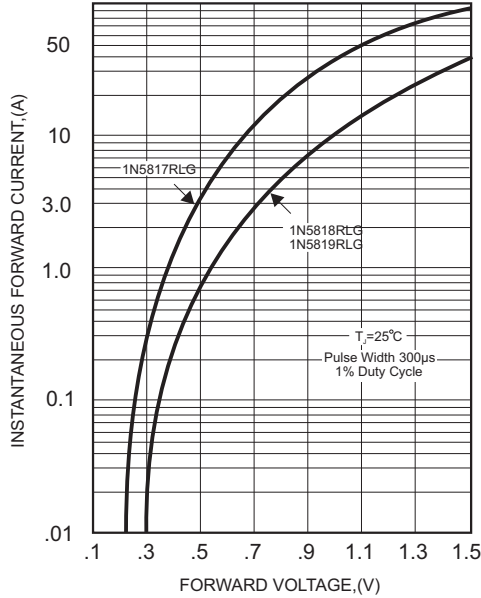


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

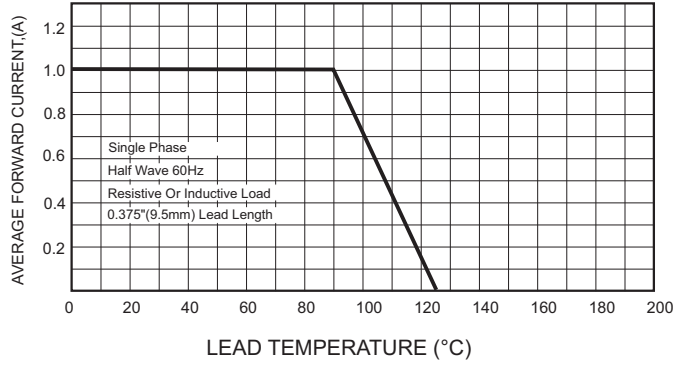


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

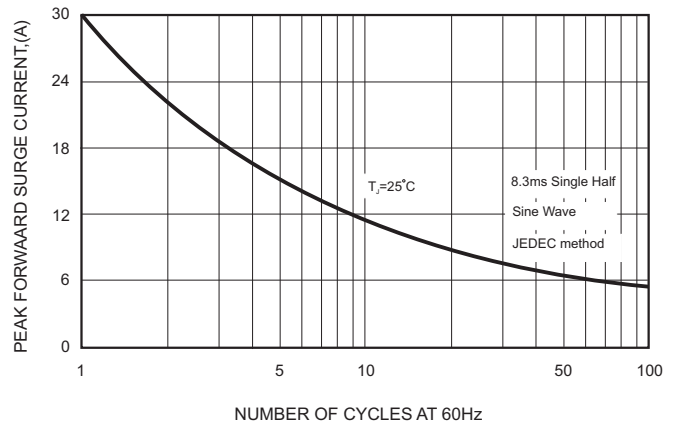


FIG.3- TYPICAL REVERSE CHARACTERISTICS

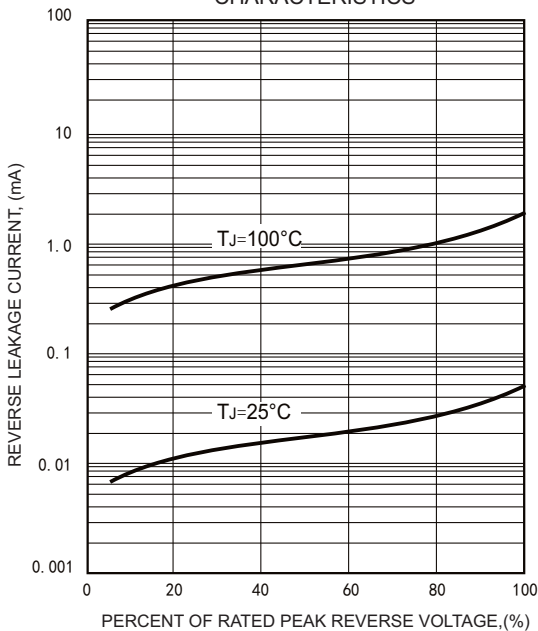
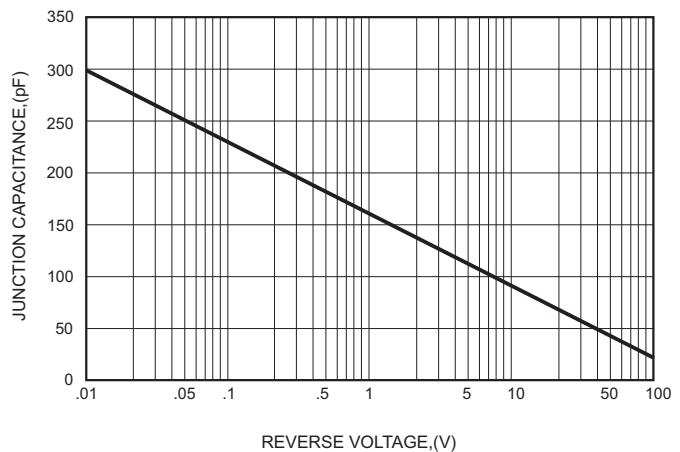




FIG.5-TYPICAL JUNCTION CAPACITANCE



Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
1N5817RLG	1N5817
1N5818RLG	1N5818
1N5819RLG	1N5819

Suggested thermal profiles for soldering processes

1. Lead free temperature profile wave-soldering

