

# 1N6519

## GLASS PASSIVATED HIGH VOLTAGE EFFICIENT RECTIFIER

**PRV : 10000 Volts**

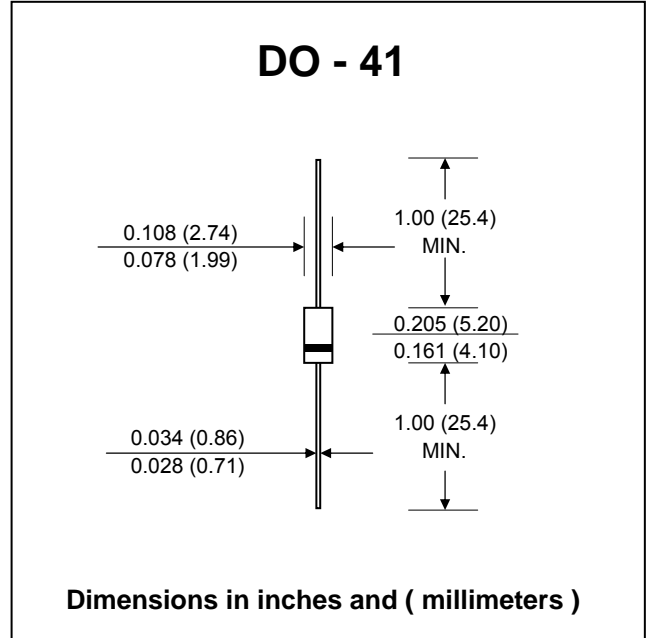
**Io : 0.5 Ampere**

### FEATURES :

- \* Glass passivated chip
- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* **Pb / RoHS Free**

### MECHANICAL DATA :

- \* Case : DO-41 Molded plastic
- \* Epoxy : UL94V-0 rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.335 gram



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

RATING	SYMBOL	VALUE	UNIT
Maximum Working Reverse Voltage	$V_{RWM}$	10000	V
Maximum Average Rectified Current $T_L = 55\text{ }^\circ\text{C}$	$I_{F(AV)}$	0.5	A
Maximum Peak Forward Surge Current 1 Cycle $t_p = 8.3\text{ms}$	$I_{FSM}$	25	A
Maximum Peak Forward Voltage at $I_F = 0.5\text{ Amp.}$	$V_F$	13	V
Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage $T_a = 100\text{ }^\circ\text{C}$	$I_R$	1.0	$\mu\text{A}$
	$I_{R(H)}$	25	$\mu\text{A}$
Maximum Reverse Recovery Time ( Note 1 )	$T_{rr}$	70	ns
Typical Junction Capacitance (Note 2)	$C_j$	8.0	pF
Typical Thermal Resistance (Note 3)	$R_{\theta JL}$	12	$^\circ\text{C/W}$
Junction Temperature Range	$T_J$	- 65 to + 175	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 65 to + 200	$^\circ\text{C}$

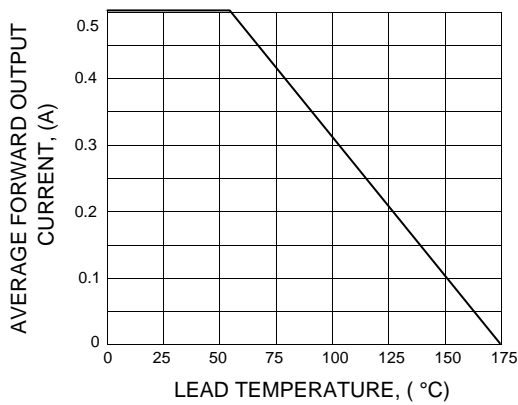
#### Notes :

- (1) Reverse Recovery Test Conditions :  $I_F = 0.5\text{ A}$ ,  $I_R = 1.0\text{ A}$ ,  $I_{rr} = 0.25\text{ A}$ .
- (2) Measured at 1.0 kHz and applied reverse voltage of 50V.
- (3) Thermal resistance from Junction to Lead at 0.250" Lead Lengths

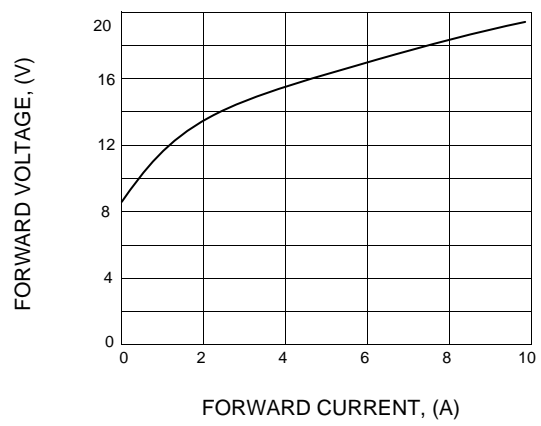


### RATING AND CHARACTERISTIC CURVES ( 1N6519 )

**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG.2 - TYPICAL FORWARD VOLTAGE VS. FORWARD CURRENT**



**FIG.3 - TYPICAL REVERSE CURRENT VS. TEMPERATURE AT  $V_{RWM}$**

