www.eicsemi.com

1N6461 ~ 1N6468

UNIDIRECTIONAL TRANSIENT SUPPRESSOR

V_{BR} : 5.6 - 54 Volts
P_{PK} : 500 Watts

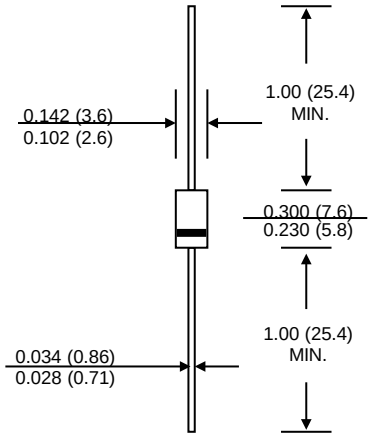
FEATURES :

* Glass passivated junction chip
* Unidirectional transient voltage suppressor
* Excellent clamping capability
* Low zener impedance
* Fast response time : typically less then 1.0 ps from 0 volt to V_{BR}(min.)
* Pb / RoHS Free

MECHANICAL DATA

* Case : DO-15 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 : 0.4 gram

DO-15



Dimensions in inches and (millimeters)

MAXIMUM RATINGS

Rating at 25 °C ambient temperature unless otherwise specified.

Rating	Symbol	Value	Unit
Peak Pulse Power Dissipation at Ta = 25 °C, @10/1000 µs	P_{PP}	Minimum 500	W
Steady State Power Dissipation at Ta = 25 °C	P_D	2.5	W
Thermal Resistance at 3/8" lead length	$R_{\Theta JL}$	60	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	- 55 to + 175	°C

ELECTRICAL CHARACTERISTICS (Rating at 25 °C ambient temperature unless otherwise specified)

Type Number	Breakdown Voltage @ It		Working Peak Reverse Voltage	Maximum Reverse Leakage @ V_{RWM}	Maximum Peak Pulse current (I_{PP})		Maximum Clamping Voltage @ I_{RSM}	Maximum Temperature Co-efficient
	V_{BR} (V)	It	V_{RWM}	I_R	@ 8/20 µs	@ 10/1000 µs	V_{RSM}	of V_{BR}
	Min.	(mA)	(V)	(µA)	(A)	(A)	(V)	(% / °C)
1N6461	5.6	25	5	3000	315	56	9.0	0.04
1N6462	6.5	20	6	2500	258	46	11.0	0.06
1N6463	13.6	5	12	500	125	22	22.6	0.085
1N6464	16.4	5	15	500	107	19	26.5	0.085
1N6465	27.0	2	24	50	69	12	41.4	0.096
1N6466	33.0	1	30.5	3	63	11	47.5	0.098
1N6467	43.7	1	40.3	2	45	8	63.5	0.101
1N6468	54.0	1	51.6	2	35	6	78.5	0.103

RATING AND CHARACTERISTIC CURVES (1N6461 ~ 1N6468)

FIG.1 - PULSE DERATING CURVE

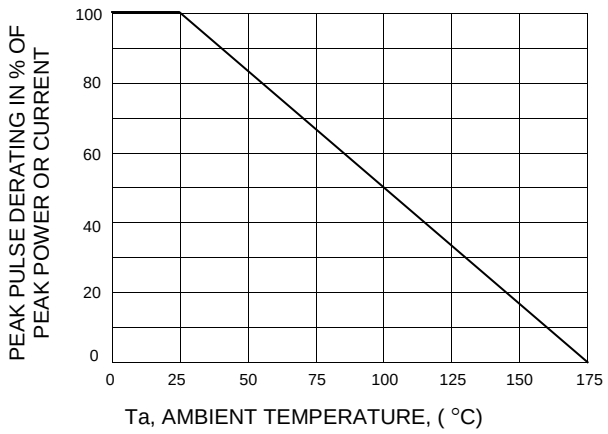


FIG.2 - 10/1000 µs CURRENT IMPULSE WAVEFORM

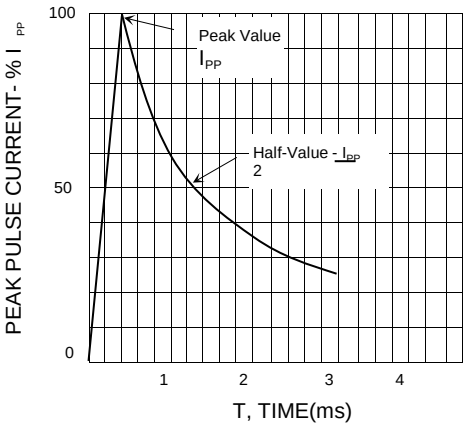


FIG.3 - 8/20 µS CURRENT IMPULSE WAVEFORM

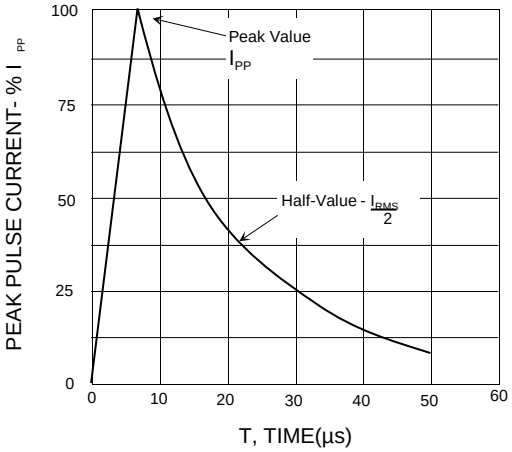


FIG.4 - PULSE RATING CURVE