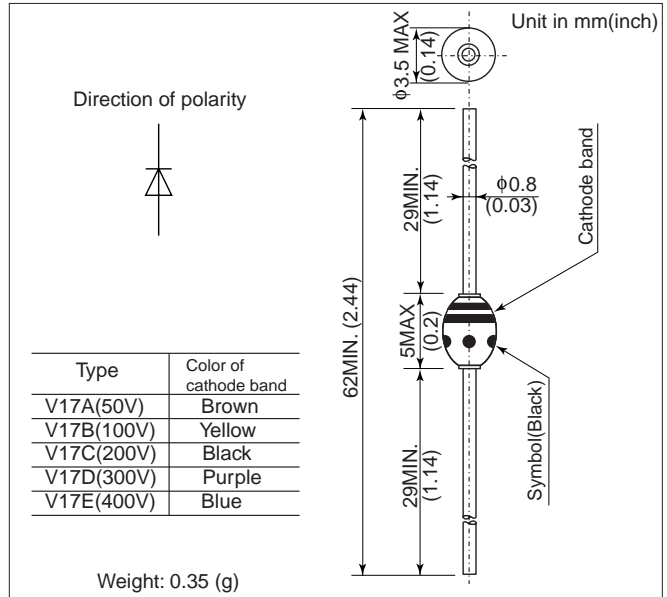


FEATURES

- Transient surge voltage protection.
- Diffused-junction. Glass passivated and encapsulated.

OUTLINE DRAWING



ABSOLUTE MAXIMUM RATINGS

Items	Type	V17A	V17B	V17C	V17D	V17E	
Repetitive Peak Reverse Voltage	V_{RRM}	V	50	100	200	300	400
Peak Reverse Power	P_{RM}	kW	1.5($T_j = 25^\circ\text{C}$, Impulse duration 10 μs Non-repetitive)				
Average Forward Current	$I_{F(AV)}$	A	1.3(Single-phase half sine wave 180° conduction $T_L = 80^\circ\text{C}$, Lead length = 10mm)				
Surge(Non-Repetitive) Forward Current	I_{FSM}	A	50(Without PIV, 10ms conduction, $T_j = 165^\circ\text{C}$ start)				
I^2t Limit Value	I^2t	A^2s	10(Time = 2 ~ 10ms, I = RMS value)				
Operating Junction Temperature	T_j	$^\circ\text{C}$	-40 ~ +165				
Storage Temperature	T_{stg}	$^\circ\text{C}$	-40 ~ +165				

Notes (1) Lead mounting : Lead temperature 300 $^\circ\text{C}$ max. to 3.2mm from body for 5sec. max..

(2) Mechanical strength : Bending 90 $^\circ$ ×2 cycles or 180 $^\circ$ ×1 cycle, Tensile 2kg, Twist 90 $^\circ$ ×1 cycle.

CHARACTERISTICS($T_L = 25^\circ\text{C}$)

Items	Symbols	Units	Min.	Typ.	Max.	Test Conditions
Peak Reverse Current	I_{RRM}	μA	-	4	50	A,B class
				1.5	20	C,D class
				0.6	10	E class
Peak Forward Voltage	V_{FM}	V	-	-	1.1	$I_{FM} = 1.3\text{Ap}$, Single-phase half sine wave 1 cycle
Reverse Recovery Time	t_{rr}	μs	-	3.0	-	$I_F = 2\text{mA}$, $V_R = -15\text{V}$
Avalanche Voltage	V_{AVL}	V	Table.1 and 2			$I_{RM} = 1.0\text{mA}$, Single-phase half sine wave 1 pps, Time $\leq 5\text{s}$
Avalanche Voltage Temperature Coefficient	α	$\% / ^\circ\text{C}$	-	0.080	-	$\frac{\Delta V_{AVL}}{V_{AVL}} \times \frac{1}{165-25} \times 100$
Steady State Thermal Impedance	$R_{th(j-a)}$	$^\circ\text{C/W}$	-	-	80	Lead length = 10 mm
	$R_{th(j-l)}$				50	

V17

TABLE.1 Standard voltage

V _{RRM} Class	A		B		C		D		E		Units
V _{AVL} Band	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	
	145	275	230	415	280	505	375	725	465	805	V

"example order type" V17C

$$V_{RRM} : 200V / I_{F(AV)} : 1.3A / V_{AVL} : 280\sim 505V$$

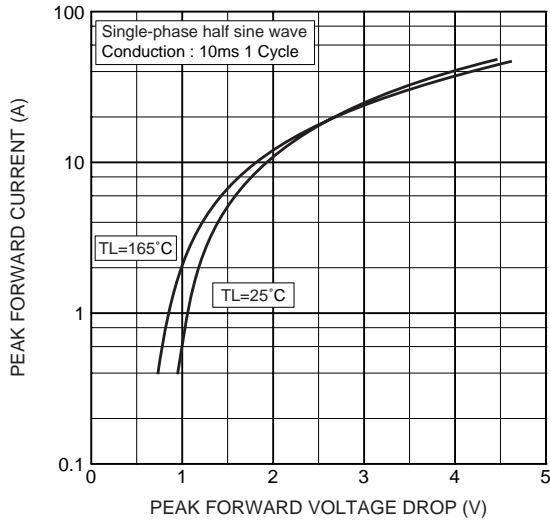
TABLE.2 Optional voltage : for Large order products

V _{RRM} Class	A							B				C				D				E			Units
V _{AVL} Symbols	17	19	21	24	27	30	33	36	33	36	39	44	44	50	55	63	55	63	70	V			
TYP. V _{AVL}	170	190	210	240	270	300	330	360	330	360	390	440	440	500	550	630	550	630	700		V		
V _{AVL} Band	A	MIN	145	160	180	205	230	255	280	305	330	375	375	425	465	535	465	535	595				
		MAX	195	220	240	275	310	345	380	415	380	415	450	505	575	635	635	725	805				
Band	B	MIN	155	175	195	220	250	280	305	330	305	330	360	405	405	460	505	580	580	645			
		MAX	180	205	225	260	290	320	355	390	355	390	420	475	475	535	590	680	680	750			

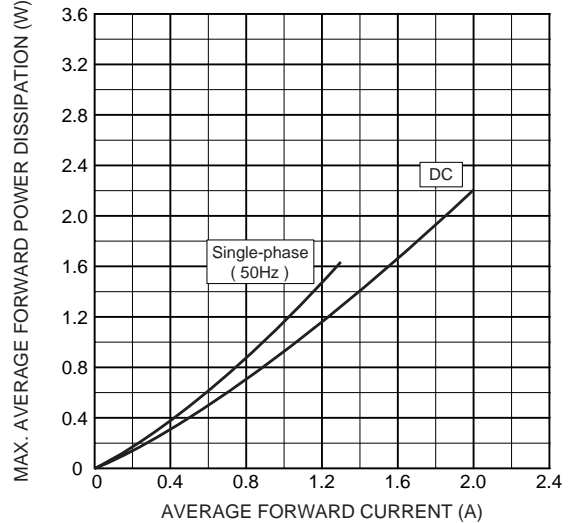
"example order type" V17C36A

$$V_{RRM} : 200V / I_{F(AV)} : 1.3A / V_{AVL} : 305\sim 415V$$

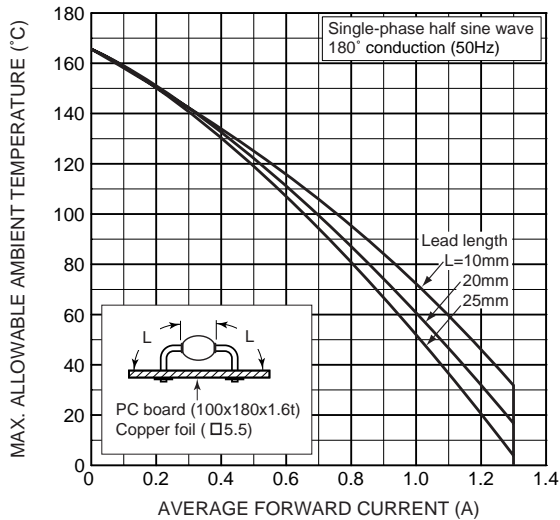
Forward characteristics



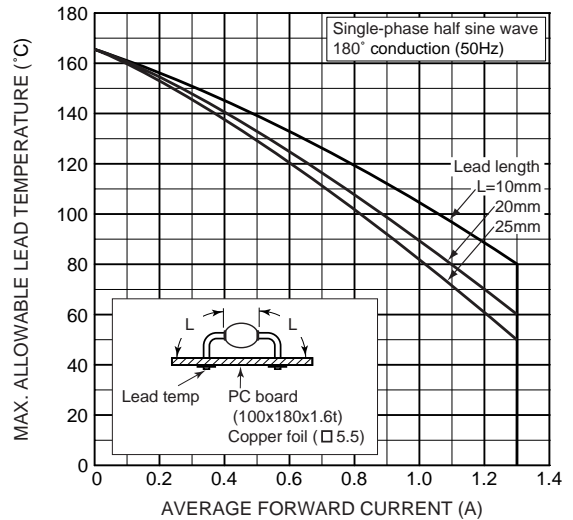
Max. average forward power dissipation (Resistive or inductive load)



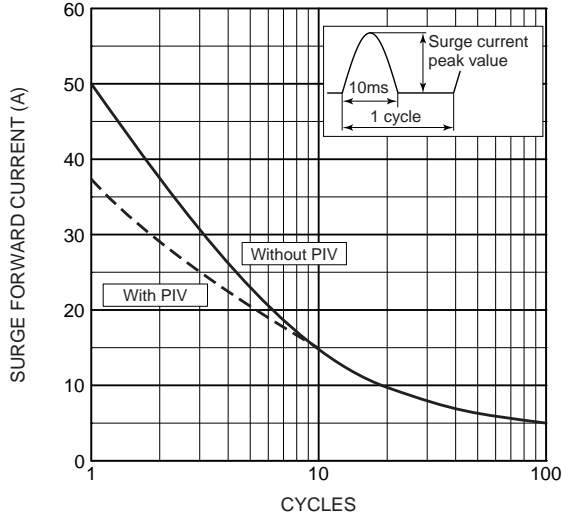
Max. allowable ambient temperature (Resistive or inductive load)



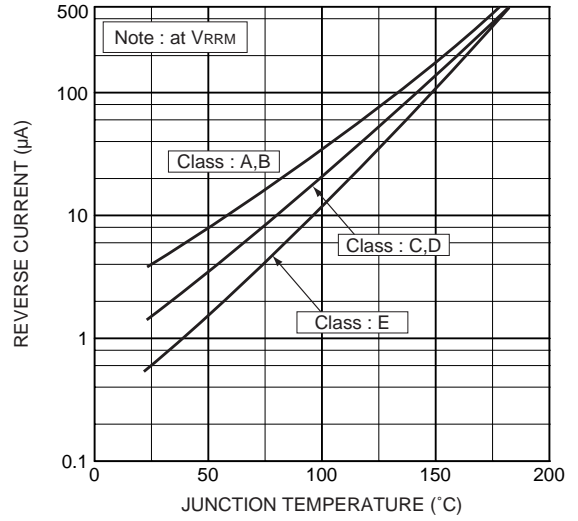
Max. allowable lead temperature (Resistive or inductive load)



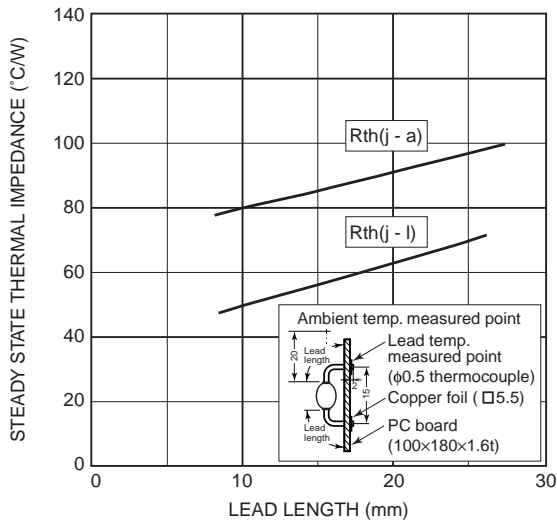
Surge forward current characteristics
(Non-repetitive)



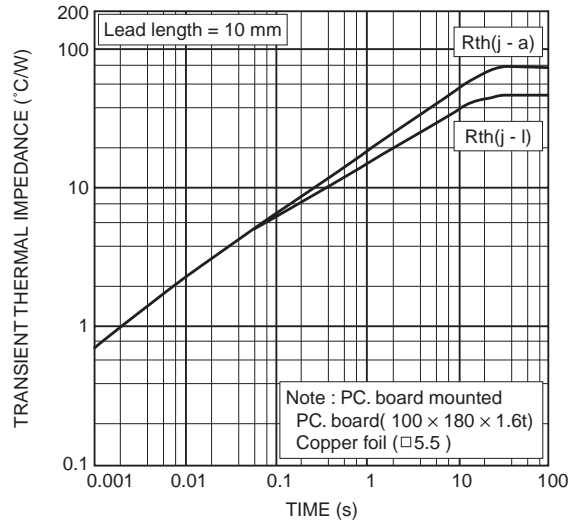
Typ. Reverse current vs. junction temperature



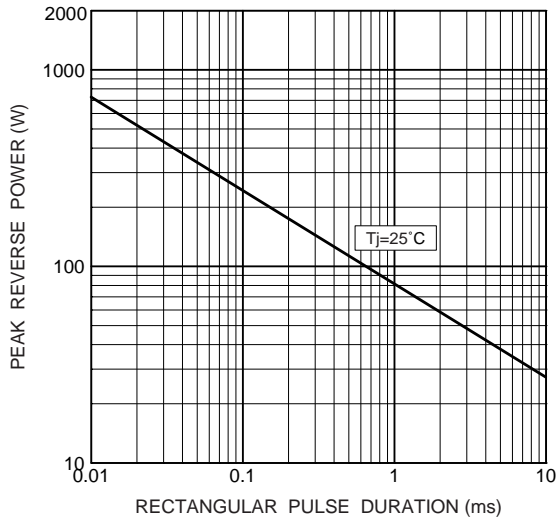
Steady-state thermal impedance



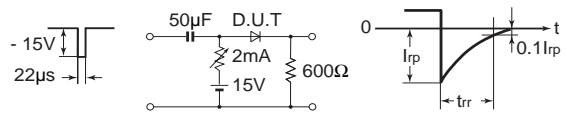
Transient thermal impedance



Typical reverse power characteristics
(Non-repetitive)



Reverse recovery time (t_{rr}) test circuit



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