

## DUAL ULTRAFAST POWER RECTIFIER

Qualified per MIL-PRF-19500/642

### DEVICES

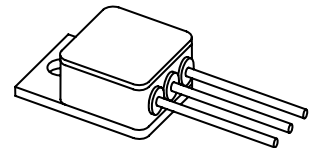
<b>1N6762</b>	<b>1N6764</b>	<b>1N6762R</b>	<b>1N6764R</b>
<b>1N6763</b>	<b>1N6765</b>	<b>1N6763R</b>	<b>1N6765R</b>

### LEVELS

<b>JAN</b>
<b>JANTX</b>
<b>JANTXV</b>

### ABSOLUTE MAXIMUM RATINGS ( $T_C = +25^\circ\text{C}$ unless otherwise noted)

Parameters / Test Conditions	Symbol	Value	Unit	
Peak Repetitive Reverse Voltage	$V_{RWM}$	50	Vdc	
1N6762, R		100		
1N6763, R		150		
1N6764, R		200		
Average Forward Current <sup>(1)</sup>	$T_C = +100^\circ\text{C}$	$I_F$	12	Adc
Peak Surge Forward Current		$I_{FSM}$	165	A(pk)
Thermal Resistance - Junction to Case		$R_{\theta jc}$	2.0	$^\circ\text{C/W}$



TO-254

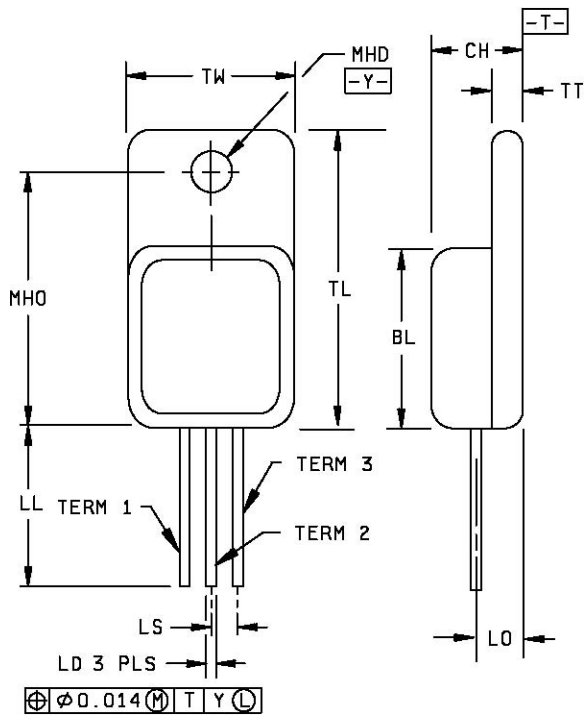
### Note:

- (1) Derate @ 240mA/ $^\circ\text{C}$  above  $T_C = 100^\circ\text{C}$
- (2) Each individual diode

### ELECTRICAL CHARACTERISTICS ( $T_A = +25^\circ\text{C}$ , unless otherwise noted)

Parameters / Test Conditions	Symbol	Min.	Max.	Unit		
Breakdown Voltage <sup>(2)</sup>	$V_{BR}$	50		Vdc		
1N6762, R		100				
1N6763, R		150				
1N6764, R		200				
Forward Voltage <sup>(2)</sup>	$V_{F1}$		0.95	Vdc		
$I_F = 6\text{A dc}$			1.05			
$I_F = 12\text{A dc}$	$V_{F2}$					
Reverse Leakage Current	$I_{R1}$		10	$\mu\text{A dc}$		
$V_R = 50\text{V}$					1N6762, R	
$V_R = 100\text{V}$					1N6763, R	
$V_R = 150\text{V}$					1N6764, R	
$V_R = 200\text{V}$	1N6765, R					
Reverse Leakage Current	$I_{R2}$		500	$\mu\text{A dc}$		
$V_R = 50\text{V}$					$T_A = 100^\circ\text{C}$	1N6762, R
$V_R = 100\text{V}$					$T_A = 100^\circ\text{C}$	1N6763, R
$V_R = 150\text{V}$					$T_A = 100^\circ\text{C}$	1N6764, R
$V_R = 200\text{V}$	$T_A = 100^\circ\text{C}$	1N6765, R				
Reverse Recovery Time	$t_{rr}$		35	nS		
$I_F = 1.0\text{A}$ , $di/dt = 50\text{A}/\mu\text{s}$						
Junction Capacitance	$C_J$		300	pF		
$V_R = 5\text{V dc}$ , $f = 1.0\text{MHz}$						

## PACKAGE DIMENSIONS



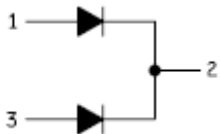
Symbol	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
BL	.535	.545	13.59	13.84
CH	.249	.260	6.32	6.60
LD	.035	.045	0.89	1.14
LL	.510	.570	12.95	14.48
LO	.150 typ		3.81 typ	
LS	.150 bsc		3.81 bsc	
MHD	.139	.149	3.53	3.78
MHO	.665	.685	16.89	17.40
TL	.790	.800	20.07	20.32
TT	.040	.050	1.02	1.27
TW	.535	.545	13.59	13.84

### NOTES:

- 1 Dimensions are in inches.
- 2 Millimeters are given for general information only.
- 3 All terminals are isolated from case.
- 4 In accordance with ASME Y14.5M, diameters are equivalent to  $\phi$ x symbology.

### SCHEMATIC

1N6762, 1N6763, 1N6764, 1N6765



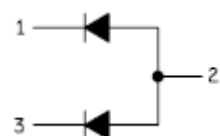
Terminal

1  
2  
3

Description

Anode 1  
Cathode  
Anode 2

1N6762R, 1N6763R, 1N6764R, 1N6765R



Terminal

1  
2  
3

Description

Cathode 1  
Anode  
Cathode 2

**FIGURE 1: Physical dimensions and configuration (TO-254AA, isolated)**