



SILICON DUAL SCHOTTKY POWER RECTIFIER

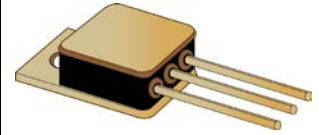
35 Amp, 100 Volt

Qualified per MIL-PRF-19500/730

Qualified Levels:
JAN, JANTX, and
JANTXV

DESCRIPTION

This Dual Schottky rectifier device is military qualified up to a JANTXV level for high-reliability applications. Microsemi also offers numerous other products to meet higher and lower power voltage regulation applications.



TO-254 Package

Important: For the latest information, visit our website <http://www.microsemi.com>.

FEATURES

- JEDEC registered equivalent of 1N7043.
- Hermetically isolated TO-254AA package.
- JAN, JANTX, and JANTXV qualifications are available per MIL-PRF-19500/730.
- RoHS compliant versions available (commercial grade only).

Also available in:

U1 (SMD-1) package
(surface mount)



[1N7037CCU1](#)

APPLICATIONS / BENEFITS

- High frequency operation.
- Low forward voltage drop.

MAXIMUM RATINGS @ $T_A = +25^\circ\text{C}$ unless otherwise noted.

Parameters/Test Conditions	Symbol	Value	Unit
Junction and Storage Temperature	T_J and T_{STG}	-65 to +150	$^\circ\text{C}$
Thermal Resistance Junction-to-Case (2.3 $^\circ\text{C}/\text{W}$ maximum)	$R_{\theta JC}$	1.15	$^\circ\text{C}/\text{W}$
Working Peak Reverse Voltage	V_{RWM}	100	V
Junction Capacitance	C_J	600	pF
Average DC Output Current @ $T_C = +100^\circ\text{C}$	I_O	35	A
Non-Repetitive Sinusoidal Surge Current @ $t_p = 8.3$ ms, $T_C = +25^\circ\text{C}$	I_{FSM}	175	A

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MSC – Ireland

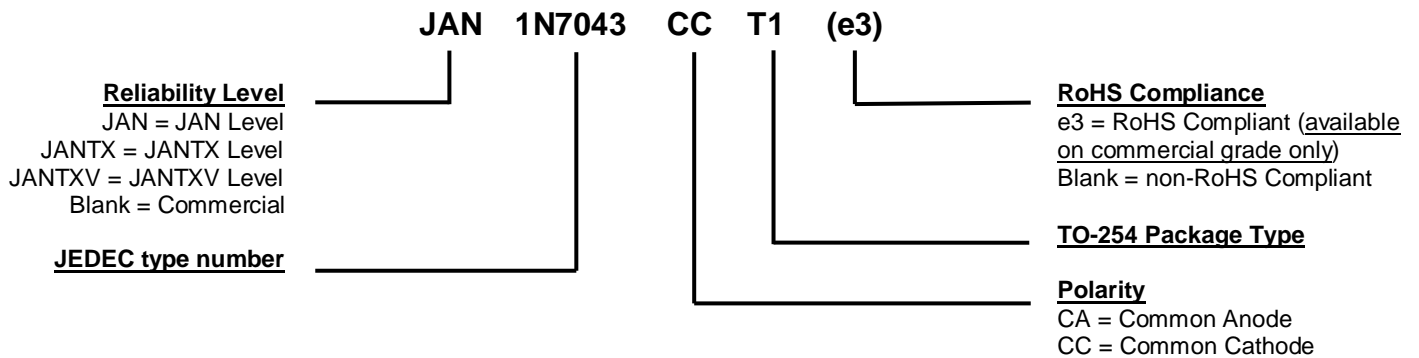
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Website:

www.microsemi.com

MECHANICAL and PACKAGING

- CASE: Ceramic and gold over nickel plated steel.
- TERMINALS: Gold over nickel plated tungsten/copper.
- MARKING: Part number, date code, and polarity symbol.
- POLARITY: See [Schematic](#) on last page.
- WEIGHT: 6.5 grams.
- See [Package Dimensions](#) on last page.

PART NOMENCLATURE

SYMBOLS & DEFINITIONS

Symbol	Definition
C_J	Junction Capacitance: The junction capacitance in pF at a specified frequency (typically 1MHz) and specified voltage.
I_F	Forward Current: The forward current dc value, no alternating component.
I_R	Reverse Current: The maximum reverse (leakage) current that will flow at the specified voltage and temperature.
T_J	Junction Temperature: The temperature of a semiconductor junction.
V_F	Forward Voltage: The forward voltage the device will exhibit at a specified current (typically shown as maximum value).
V_R	Reverse Voltage: The reverse voltage dc value, no alternating component.

ELECTRICAL CHARACTERISTICS @ $T_A = +25^\circ\text{C}$ unless otherwise noted

Parameters / Test Conditions	Symbol	Min.	Max.	Unit
OFF CHARACTERISTICS				
Forward Voltage*				
$I_F = 15\text{ A}$	V_F		0.95	V
$I_F = 35\text{ A}$			1.30	
$I_F = 35\text{ A}, T_C = -55^\circ\text{C}$			1.84	
$I_F = 35\text{ A}, T_C = +125^\circ\text{C}$			1.20	
Reverse Current				
$V_R = 100\text{ V}$	I_R		.500	mA
$V_R = 100\text{ V}, T_C = +125^\circ\text{C}$			15	

* Pulse test: Pulse width 300 μsec , duty cycle 2%.

GRAPHS

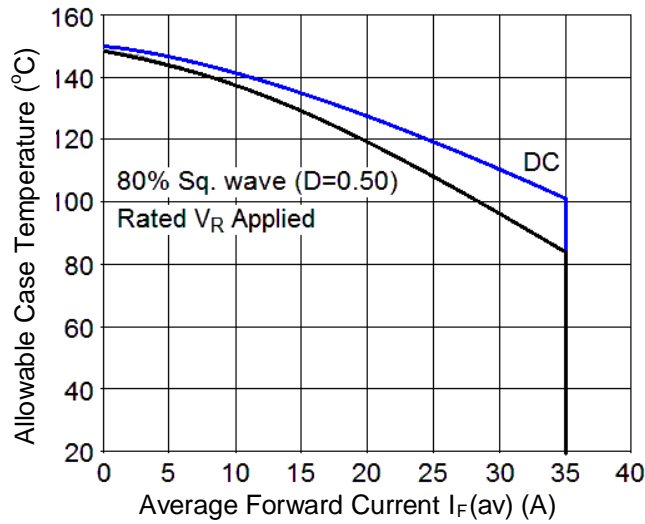


FIGURE 1
Temperature-Current Derating

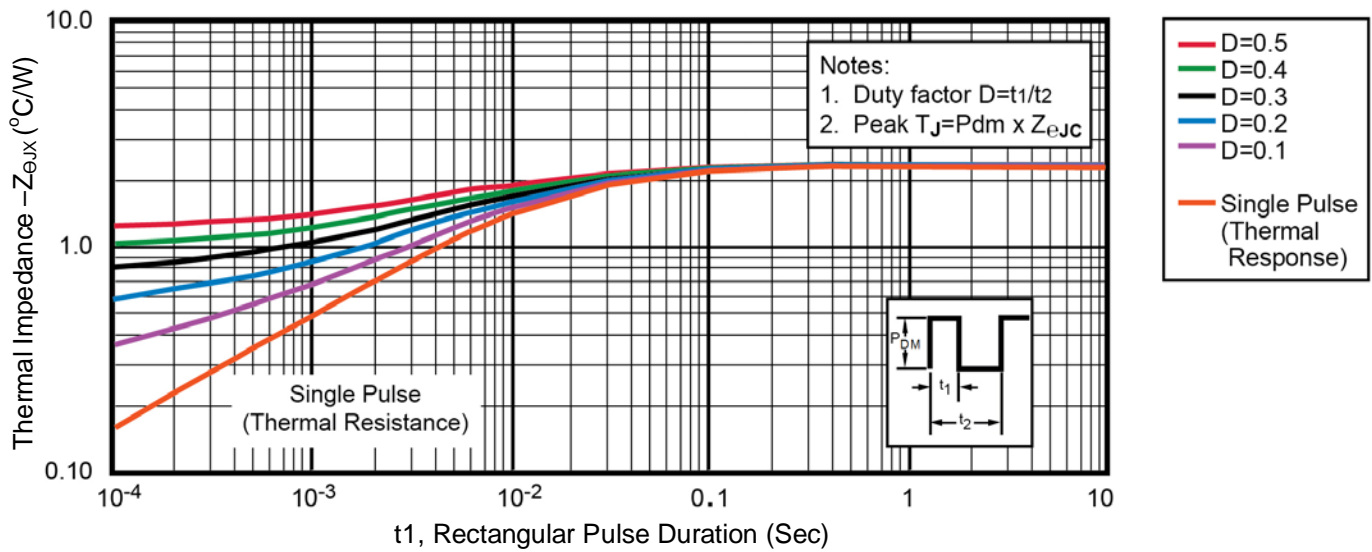
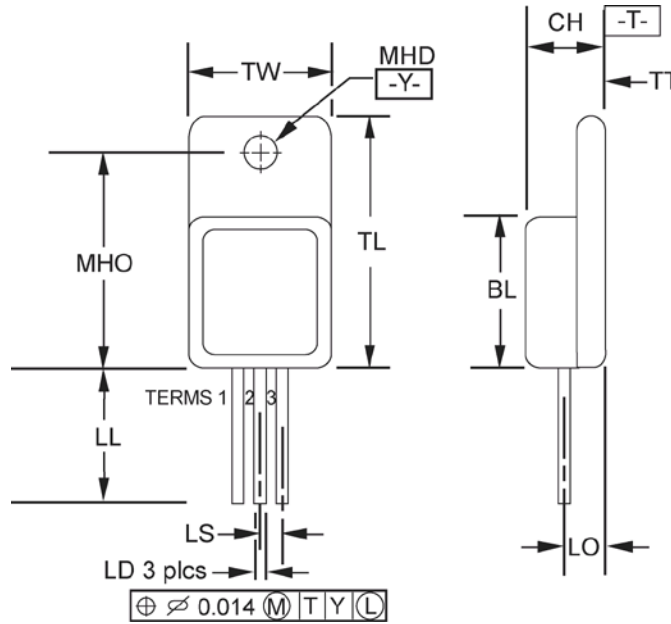


FIGURE 2
Thermal Impedance

PACKAGE DIMENSIONS

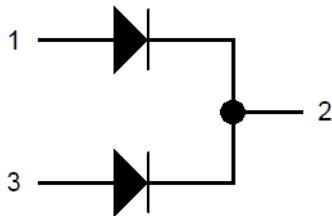


NOTES:

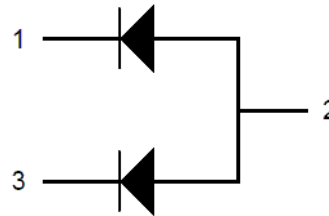
1. Dimensions are in inches.
2. Millimeters are given for information only.
3. In accordance with ASME Y14.5M, diameters are equivalent to \varnothing x symbology.

Ltr	Dimensions			
	Inch		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 BSC		3.81 BSC	
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

SCHMATIC



1N7043CCT1
 TERM 1 = ANODE
 TERM 2 = CATHODE
 TERM 3 = ANODE



1N7043CAT1
 TERM 1 = CATHODE
 TERM 2 = ANODE
 TERM 3 = CATHODE