Absolute Maximum Ratings, T_J = 25 °C (Unless Otherwise Noted)

Rating	Symbol	Value	Unit
Repetitive peak off-state voltage	V_{DRM}	± 8	V
Non-repetitive peak on-state pulse current (see Notes 1 and 2)	I_{PPSM}		A
8/20 (IEC 61000-4-5, clause 7.2, R = 0, combination wave generator)		150	
5/310 (ITU-T recommendation K.44, 10/700 generator used for K.20/45/21)		40	
10/1000 (Telcordia GR-1089-CORE, 10/1000 voltage wave shape)		30	
Non-repetitive peak on-state current (see Notes 1, 2 and 3) 50/60 Hz, 1 s	I_{TSM}	4	A
Junction temperature	T_J	-40 to +150	°C
Storage temperature range	T_{stg}	-65 to +150	°C

NOTES: 1. Initially, the TISP7015 must be in thermal equilibrium at the specified T_A. The surge may be repeated after the TISP7015 returns to its initial conditions.
2. These non-repetitive rated currents are peak values of either polarity.
3. Total return current, I_G, value.

Electrical Characteristics, T_J = 25 °C (Unless Otherwise Noted)

Parameter		Test Conditions	Min	Typ	Max	Unit
I_{DRM}	Repetitive peak off-state current	$V_D = \pm V_{DRM}$			±4	μA
$V_{(BO)}$	Breakover voltage	dv/dt = ±250 V/ms, R_{SOURCE} = 300 Ω			±15	V
$I_{(BO)}$	Breakover current	dv/dt = ±250 V/ms, R_{SOURCE} = 300 Ω			±100	mA
V_T	On-state voltage	I_T = ±5 A, t_W = 100 μs			±4	V
I_H	Holding current	I_T = ±5 A, di/dt = +/-30 mA/ms	±30			mA
I_D	Off-state current	$V_D = \pm 0.85 V_{DRM}$, T_A = 85 °C			±10	μA
C_{KA}	Off-state capacitance	f = 1 MHz, V_d = 30 mV rms, V_D = 0 (see Note 4)		32	40	pF

NOTE 4: Three-terminal guarded measurement, unmeasured terminal voltage bias is zero.

Thermal Characteristics

Parameter		Test Conditions	Min	Typ	Max	Unit
$R_{\theta JA}$	Junction to free air thermal resistance	P_{tot} = 0.8 Ω, T_A = 25 °C, 5 cm^2, FR4 PCB			160	°C/W

Parameter Measurement Information

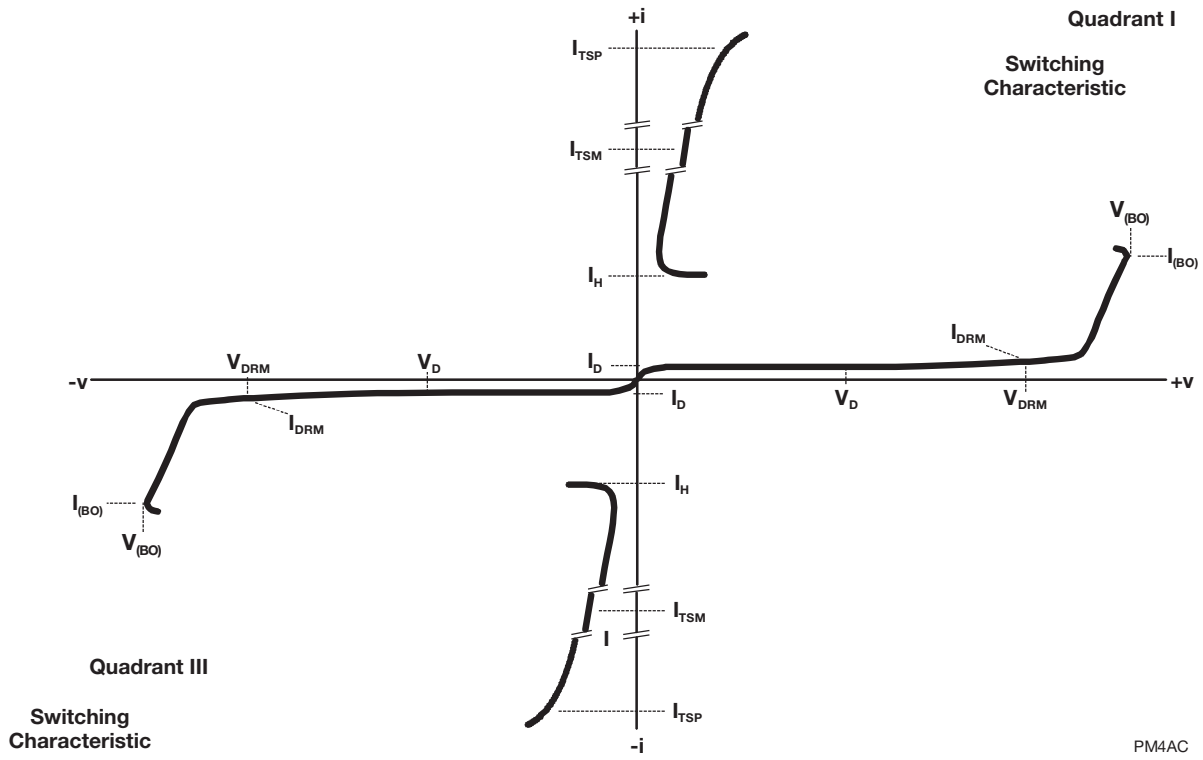


Figure 1. Voltage-Current Characteristic for any Terminal Pair

MECHANICAL DATA

Device Symbolization Code

Devices will be coded as below.

Device	Symbolization Code
TISP7015	7015

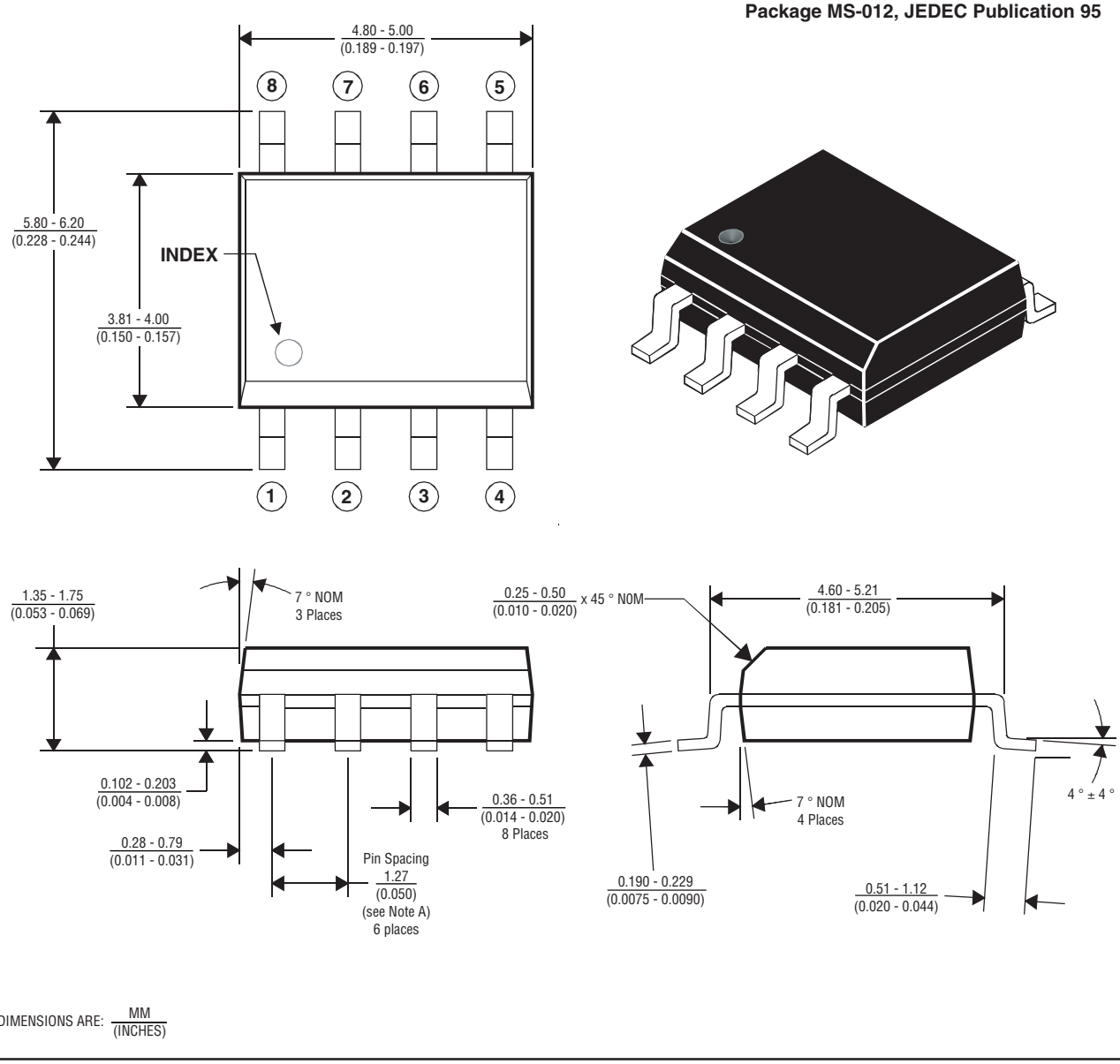
MECHANICAL DATA

D008 Plastic Small-outline Package

This small-outline package consists of a circuit mounted on a lead frame and encapsulated within a plastic compound. The compound will withstand soldering temperature with no deformation, and circuit performance characteristics will remain stable when operated in high humidity conditions. Leads require no additional cleaning or processing when used in soldered assembly.

D008

8-pin Small Outline Microelectronic Standard Package MS-012, JEDEC Publication 95



MDXXAAE

NOTES: A. Leads are within 0.25 (0.010) radius of true position at maximum material condition.
B. Body dimensions do not include mold flash or protrusion.
C. Mold flash or protrusion shall not exceed 0.15 (0.006).
D. Lead tips to be planar within ±0.051 (0.002).

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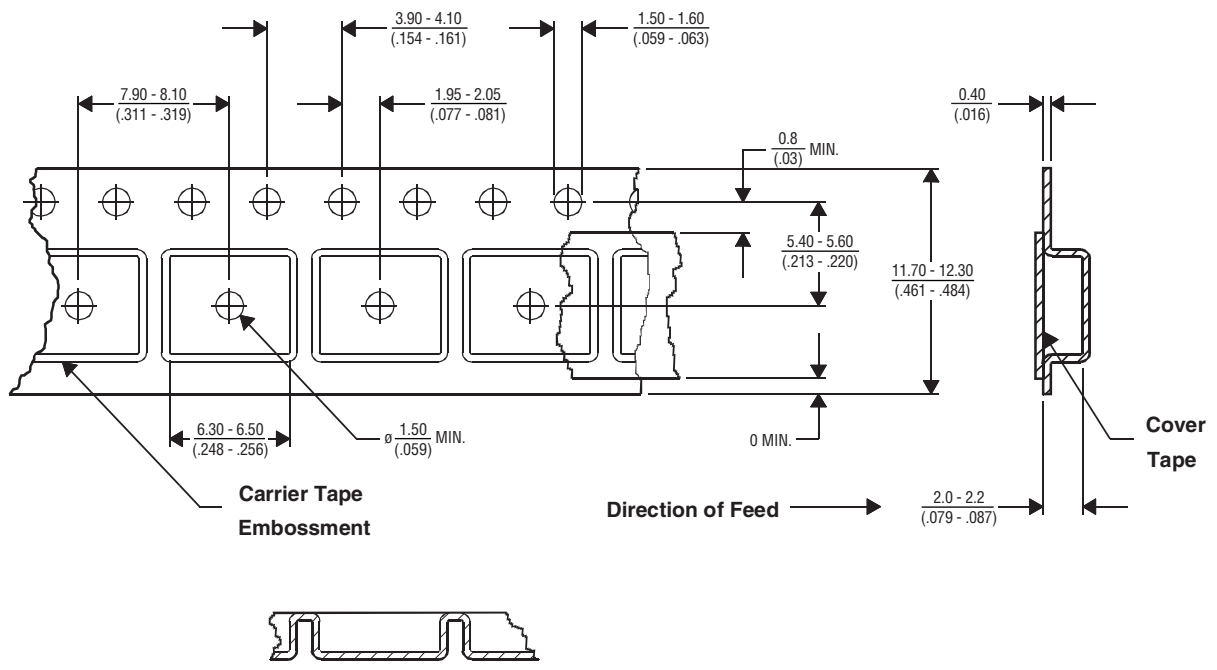
MECHANICAL DATA

D008 Tape DImensions

D008 Package (8-pin Small Outline) Single-Sprocket Tape



DIMENSIONS ARE: MM (INCHES)

NOTES: A. Taped devices are supplied on a reel of the following dimensions:-

MDXXATC

Reel diameter:	330 +0.0/-4.0 (12.99 +0.0/-.157)
Reel hub diameter:	100 ± 2.0 (3.937 ± .079)
Reel axial hole:	13.0 ± 0.2 (.512 ± .008)

B. 2500 devices are on a reel.