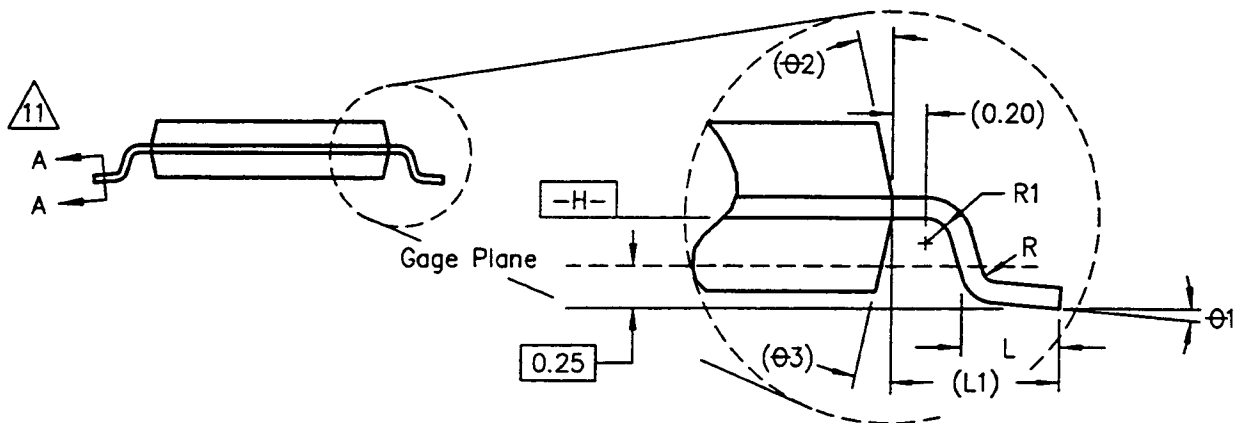
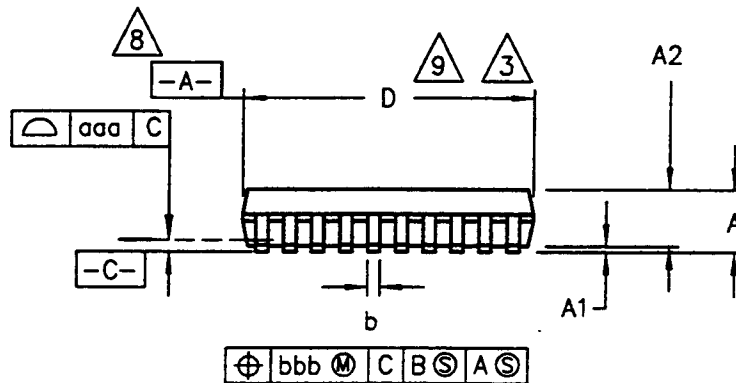
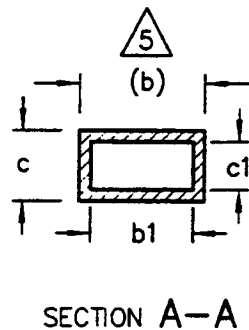
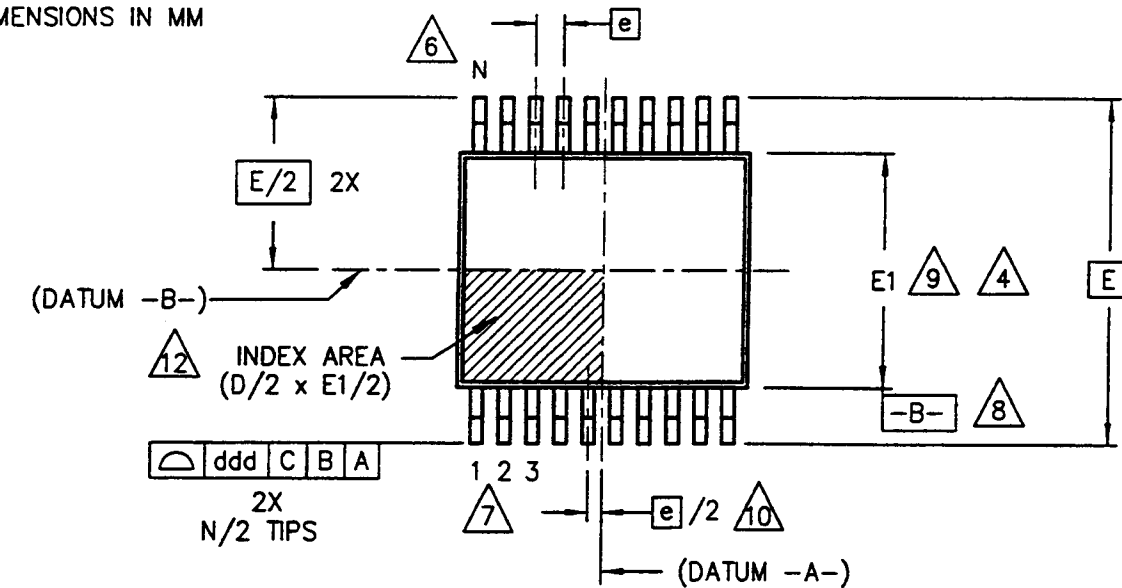


DIMENSIONS IN MM



JEDEC
SOLID STATE PRODUCT
OUTLINES

THIS **REGISTERED OUTLINE** HAS BEEN PREPARED BY THE JEDEC JC-11 COMMITTEE AND REFLECTS A PRODUCT WITH ANTICIPATED USAGE IN THE ELECTRONICS INDUSTRY; CHANGES ARE LIKELY TO OCCUR.

TITLE
PLASTIC SHRINK
SMALL OUTLINE PKG

JESD-30 DESIGNATOR
R-PDSO-G/SSOP

ISSUE
C

DATE
1/96

MO-152

SHEET
1 OF 10

S Y M B O L	COMMON DIMENSIONS (MILLIMETERS)											
	SSOP											
	0.65 mm LEAD PITCH			N O T E	0.50 mm LEAD PITCH			N O T E	0.40 mm LEAD PITCH			N O T E
	MIN.	NOM.	MAX.		MIN.	NOM.	MAX.		MIN.	NOM.	MAX.	
A	—	—	2.00	—	—	—	2.00	—	—	—	2.00	—
A1	0.05	—	0.25	—	0.05	—	0.25	—	0.05	—	0.25	—
A2	1.45	—	1.75	—	1.45	—	1.75	—	1.45	—	1.75	—
L	0.45	0.60	0.75	—	0.45	0.60	0.75	—	0.45	0.60	0.75	—
R	0.09	—	—	—	0.09	—	—	—	0.09	—	—	—
R1	0.09	—	—	—	0.09	—	—	—	0.09	—	—	—
b	0.19	—	0.30	5	0.17	—	0.27	5	0.13	—	0.23	5
b1	0.19	0.22	0.25	—	0.17	0.20	0.23	—	0.13	0.16	0.19	—
c	0.09	—	0.20	—	0.09	—	0.20	—	0.09	—	0.20	—
c1	0.09	—	0.16	—	0.09	—	0.16	—	0.09	—	0.16	—
Ø1	0	—	8	—	0	—	8	—	0	—	8	—
L1	1.0 REF			—	1.0 REF			—	1.0 REF			—
aaa	0.10			—	0.10			—	0.08			—
bbb	0.10			—	0.08			—	0.07			—
ddd	0.20			—	0.20			—	0.20			—
e	0.65 BSC			—	0.50 BSC			—	0.40 BSC			—
Ø2	12 REF			—	12 REF			—	12 REF			—
Ø3	12 REF			—	12 REF			—	12 REF			—
NOTE	1,2				1,2				1,2			
REF.	11-355				11-355				11-355			
ISSUE	A				A				A			

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES).

2. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1982.

3. DIMENSION 'D' DOES NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS. MOLD FLASH, PROTRUSIONS OR GATE BURRS SHALL NOT EXCEED 0.15 PER SIDE.

4. DIMENSION 'E1' DOES NOT INCLUDE INTERLEAD FLASH OR PROTRUSION. INTERLEAD FLASH OR PROTRUSION SHALL NOT EXCEED 0.25 PER SIDE.

5. DIMENSION 'b' DOES NOT INCLUDE DAMBAR PROTRUSION. ALLOWABLE DAMBAR PROTRUSION SHALL BE 0.08 MM TOTAL IN EXCESS OF THE 'b' DIMENSION AT MAXIMUM MATERIAL CONDITION. DAMBAR CANNOT BE LOCATED ON THE LOWER RADIUS OF THE FOOT. MINIMUM SPACE BETWEEN PROTRUSION AND ADJACENT LEAD IS 0.07 MM FOR 0.4 MM AND 0.5 MM PITCH PACKAGES.

6. "N" IS THE MAXIMUM NUMBER OF TERMINAL POSITIONS FOR THE SPECIFIED PACKAGE LENGTH. DEPOPULATION IS ALLOWED, BUT ONLY UNDER THE FOLLOWING CONDITIONS:

A) DEPOPULATION MAY REDUCE "N" BY INCREMENTS OF FOUR (4) LEADS ONLY.

B) ONLY END LEADS MAY BE REMOVED

C) LEADS MUST BE SYMMETRICALLY ARRANGED WITH RESPECT TO DATUM $\square A \square$ (SEE NOTE 10) TO AVOID ANY PATTERN SHIFTING.

7. TERMINAL NUMBERS ARE SHOWN FOR REFERENCE ONLY.

8. DATUMS $\square A \square$ AND $\square B \square$ TO BE DETERMINED AT DATUM PLANE $\square H \square$.

9. DIMENSIONS 'D' AND 'E1' ARE TO BE DETERMINED AT DATUM PLANE $\square H \square$.

10. THIS DIMENSION APPLIES ONLY TO VARIATIONS WITH AN EVEN NUMBER OF LEADS PER SIDE. FOR VARIATIONS WITH AN ODD NUMBER OF LEADS PER SIDE, THE "CENTER" LEAD MUST BE COINCIDENT WITH THE PACKAGE CENTERLINE, DATUM A.

11. CROSS SECTION A-A TO BE DETERMINED AT 0.10 TO 0.25 MM FROM THE LEAD TIP.

12. DETAILS OF THE PIN 1 IDENTIFIER ARE OPTIONAL, BUT MUST BE LOCATED WITHIN THE ZONE INDICATED.

JEDEC SOLID STATE PRODUCT OUTLINES	TITLE PLASTIC SHRINK SMALL OUTLINE PKG R-PDSO-G/SSOP	ISSUE C	DATE 1/96	MO-152	SHEET 3 OF 10
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SUMMARY TABLE							
SSOP VARIATIONS							
BODY WIDTH	LEAD PITCH	LEAD COUNT		VARIATION			
4.4	0.65	8		AA			
		14		AB-1			
		16		AB			
		20		AC			
		24		AD			
		28		AE			
	0.50	20		BA			
		24		BB			
		28		BC			
		36		BD			
	0.40	24		CA			
		32		CB			
		36		CC			
		48		CD			
	6.1	0.65	24		DA		
28			DB				
30			DB-1				
32			DC				
36			DD				
40			DE				
0.50		28		EA			
		36		EB			
		40		EC			
		44		EC-1			
		48		ED			
		56		EE			
		64		EF			
0.40		36		FA			
		48		FB			
		52		FC			
		56		FD			
		64		FE			
		80		FF			
		8.0	0.65	28		GA	
32				GB			
36				GC			
40				GD			
0.50	36		HA				
	40		HB				
	48		HC				
	56		HD				
0.40	48		JA				
	52		JB				
	56		JC				
	60		JC-1				
	64		JD				
	68		JD-1				
	JEDEC SOLID STATE PRODUCT OUTLINES		TITLE PLASTIC SHRINK SMALL OUTLINE PKG R-PDSO-G/SSOP		ISSUE C	DATE 1/96	MO-152

S Y M B O L	STANDARD VARIATIONS											
	AA			N O T E	AB-1			N O T E	AB			N O T E
	MIN.	NOM.	MAX.		MIN.	NOM.	MAX.		MIN.	NOM.	MAX.	
D	2.9	3.0	3.1	3,9	4.9	5.0	5.1	3,9	4.9	5.0	5.1	3,9
E1	4.3	4.4	4.5	4,9	4.3	4.4	4.5	4,9	4.3	4.4	4.5	4,9
E	6.4 BSC				6.4 BSC				6.4 BSC			
e	0.65 BSC				0.65 BSC				0.65 BSC			
N	8			6,7	14			6,7	16			6,7
NOTE	1,2				1,2				1,2			
REF.	11-355				11-440				11-355			
ISSUE	A				C				A			

S Y M B O L	STANDARD VARIATIONS											
	AC			N O T E	AD			N O T E	AE			N O T E
	MIN.	NOM.	MAX.		MIN.	NOM.	MAX.		MIN.	NOM.	MAX.	
D	6.4	6.5	6.6	3,9	7.7	7.8	7.9	3,9	9.6	9.7	9.8	3,9
E1	4.3	4.4	4.5	4,9	4.3	4.4	4.5	4,9	4.3	4.4	4.5	4,9
E	6.4 BSC				6.4 BSC				6.4 BSC			
e	0.65 BSC				0.65 BSC				0.65 BSC			
N	20			6,7	24			6,7	28			6,7
NOTE	1,2				1,2				1,2			
REF.	11-355				11-355				11-355			
ISSUE	A				A				A			

S Y M B O L	STANDARD VARIATIONS											
	BA			N O T E	BB			N O T E	BC			N O T E
	MIN.	NOM.	MAX.		MIN.	NOM.	MAX.		MIN.	NOM.	MAX.	
D	4.9	5.0	5.1	3,9	6.4	6.5	6.6	3,9	7.7	7.8	7.9	3,9
E1	4.3	4.4	4.5	4,9	4.3	4.4	4.5	4,9	4.3	4.4	4.5	4,9
E	6.4 BSC				6.4 BSC				6.4 BSC			
e	0.50 BSC				0.50 BSC				0.50 BSC			
N	20			6,7	24			6,7	28			6,7
NOTE	1,2				1,2				1,2			
REF.	11-355				11-355				11-355			
ISSUE	A				A				A			

JEDEC SOLID STATE PRODUCT OUTLINES				TITLE PLASTIC SHRINK SMALL OUTLINE PKG R-PDSO-G/SSOP				ISSUE C		DATE 1/96		MO-152		SHEET 5 OF 10	
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S Y M B O L	STANDARD VARIATIONS											
	BD			N O T E	CA			N O T E	CB			N O T E
	MIN.	NOM.	MAX.		MIN.	NOM.	MAX.		MIN.	NOM.	MAX.	
D	9.6	9.7	9.8	3,9	4.9	5.0	5.1	3,9	6.4	6.5	6.6	3,9
E1	4.3	4.4	4.5	4,9	4.3	4.4	4.5	4,9	4.3	4.4	4.5	4,9
E	6.4 BSC				6.4 BSC				6.4 BSC			
e	0.50 BSC				0.40 BSC				0.40 BSC			
N	36			6,7	24			6,7	32			6,7
NOTE	1,2				1,2				1,2			
REF.	11-355				11-355				11-355			
ISSUE	A				A				A			

SYMBOL	STANDARD VARIATIONS											
	CC			NOTE	CD			NOTE	DA			NOTE
	MIN.	NOM.	MAX.		MIN.	NOM.	MAX.		MIN.	NOM.	MAX.	
D	7.7	7.8	7.9	3,9	9.6	9.7	9.8	3,9	7.7	7.8	7.9	3,9
E1	4.3	4.4	4.5	4,9	4.3	4.4	4.5	4,9	6.0	6.1	6.2	4,9
E	6.4 BSC				6.4 BSC				8.1 BSC			
e	0.40 BSC				0.40 BSC				0.65 BSC			
N	36			6,7	48			6,7	24			6,7
NOTE	1,2				1,2				1,2			
REF.	11-355				11-355				11-355			
ISSUE	A				A				A			

SYMBOL	STANDARD VARIATIONS											
	DB			NOTE	DB-1			NOTE	DC			NOTE
	MIN.	NOM.	MAX.		MIN.	NOM.	MAX.		MIN.	NOM.	MAX.	
D	9.6	9.7	9.8	3,9	9.6	9.7	9.8	3,9	10.9	11.0	11.1	3,9
E1	6.0	6.1	6.2	4,9	6.0	6.1	6.2	4,9	6.0	6.1	6.2	4,9
E	8.1 BSC				8.1 BSC				8.1 BSC			
e	0.65 BSC				0.65 BSC				0.65 BSC			
N	28			6,7	30			6,7	32			6,7
NOTE	1,2				1,2				1,2			
REF.	11-355				11-440				11-355			
ISSUE	A				C				A			

JEDEC SOLID STATE PRODUCT OUTLINES		TITLE PLASTIC SHRINK SMALL OUTLINE PKG R-PDSO-G/SSOP		ISSUE C	DATE 1/96	MO-152	SHEET 6 OF 10
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S Y M B O L	STANDARD VARIATIONS											
	DD			N O T E	DE			N O T E	EA			N O T E
	MIN.	NOM.	MAX.		MIN.	NOM.	MAX.		MIN.	NOM.	MAX.	
D	12.4	12.5	12.6	3,9	13.9	14.0	14.1	3,9	7.7	7.8	7.9	3,9
E1	6.0	6.1	6.2	4,9	6.0	6.1	6.2	4,9	6.0	6.1	6.2	4,9
E	8.1 BSC				8.1 BSC				8.1 BSC			
e	0.65 BSC				0.65 BSC				0.50 BSC			
N	36			6,7	40			6,7	28			6,7
NOTE	1,2				1,2				1,2			
REF.	11-355				11-355				11-355			
ISSUE	A				A				A			

SYMBOL	STANDARD VARIATIONS											
	EB			NOTE	EC			NOTE	EC-1			NOTE
	MIN.	NOM.	MAX.		MIN.	NOM.	MAX.		MIN.	NOM.	MAX.	
D	9.6	9.7	9.8	3,9	10.9	11.0	11.1	3,9	10.9	11.0	11.1	3,9
E1	6.0	6.1	6.2	4,9	6.0	6.1	6.2	4,9	6.0	6.1	6.2	4,9
E	8.1 BSC				8.1 BSC				8.1 BSC			
e	0.50 BSC				0.50 BSC				0.50 BSC			
N	36			6,7	40			6,7	44			6,7
NOTE	1,2				1,2				1,2			
REF.	11-355				11-355				11-440			
ISSUE	A				A				C			

SYMBOL	STANDARD VARIATIONS											
	ED			NOTE	EE			NOTE	EF			NOTE
	MIN.	NOM.	MAX.		MIN.	NOM.	MAX.		MIN.	NOM.	MAX.	
D	12.4	12.5	12.6	3,9	13.9	14.0	14.1	3,9	16.9	17.0	17.1	3,9
E1	6.0	6.1	6.2	4,9	6.0	6.1	6.2	4,9	6.0	6.1	6.2	4,9
E	8.1 BSC				8.1 BSC				8.1 BSC			
e	0.50 BSC				0.50 BSC				0.50 BSC			
N	48			6,7	56			6,7	64			6,7
NOTE	1,2				1,2				1,2			
REF.	11-355				11-355				11-396			
ISSUE					A				B			

JEDEC SOLID STATE PRODUCT OUTLINES	TITLE PLASTIC SHRINK SMALL OUTLINE PKG R-PDSO-G/SSOP	ISSUE C	DATE 1/96	MO-152	SHEET 7 OF 10
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S Y M B O L	STANDARD VARIATIONS														
	FA			N O T E	FB			N O T E	FC			N O T E			
	MIN.	NOM.	MAX.		MIN.	NOM.	MAX.		MIN.	NOM.	MAX.				
D	7.7	7.8	7.9	3,9	9.6	9.7	9.8	3,9	10.9	11.0	11.1	3,9			
E1	6.0	6.1	6.2	4,9	6.0	6.1	6.2	4,9	6.0	6.1	6.2	4,9			
E	8.1 BSC				8.1 BSC				8.1 BSC						
e	0.40 BSC				0.40 BSC				0.40 BSC						
N	36			6,7	48			6,7	52						
NOTE	1,2				1,2				1,2						
REF.	11-355				11-355				11-355						
ISSUE	A				A				A						
S Y M B O L	STANDARD VARIATIONS														
	FD			N O T E	FE			N O T E	FF			N O T E			
	MIN.	NOM.	MAX.		MIN.	NOM.	MAX.		MIN.	NOM.	MAX.				
D	12.4	12.5	12.6	3,9	13.9	14.0	14.1	3,9	16.9	17.0	17.1	3,9			
E1	6.0	6.1	6.2	4,9	6.0	6.1	6.2	4,9	6.0	6.1	6.2	4,9			
E	8.1 BSC				8.1 BSC				8.1 BSC						
e	0.40 BSC				0.40 BSC				0.40 BSC						
N	56			6,7	64			6,7	80			6,7			
NOTE	1,2				1,2				1,2						
REF.	11-396				11-355				11-396						
ISSUE	B				A				B						
S Y M B O L	STANDARD VARIATIONS														
	GA			N O T E	GB			N O T E	GC			N O T E			
	MIN.	NOM.	MAX.		MIN.	NOM.	MAX.		MIN.	NOM.	MAX.				
D	9.6	9.7	9.8	3,9	10.9	11.0	11.1	3,9	12.4	12.5	12.6	3,9			
E1	7.9	8.0	8.1	4,9	7.9	8.0	8.1	4,9	7.9	8.0	8.1	4,9			
E	10.0 BSC				10.0 BSC				10.0 BSC						
e	0.65 BSC				0.65 BSC				0.65 BSC						
N	28			6,7	32			6,7	36			6,7			
NOTE	1,2				1,2				1,2						
REF.	11-355				11-355				11-355						
ISSUE	A				A				A						
JEDEC SOLID STATE PRODUCT OUTLINES				TITLE PLASTIC SHRINK SMALL OUTLINE PKG R-PDSO-G/SSOP				ISSUE C		DATE 1/96		MO-152		SHEET 8 OF 10	

SYMBOL	STANDARD VARIATIONS											NOTE			
	GD			NOTE	HA			NOTE	HB						
	MIN.	NOM.	MAX.		MIN.	NOM.	MAX.		MIN.	NOM.	MAX.				
D	13.9	14.0	14.1	3,9	9.6	9.7	9.8	3,9	10.9	11.0	11.1	3,9			
E1	7.9	8.0	8.1	4,9	7.9	8.0	8.1	4,9	7.9	8.0	8.1	4,9			
E	10.0 BSC				10.0 BSC				10.0 BSC						
e	0.65 BSC				0.50 BSC				0.50 BSC						
N	40			6,7	36			6,7	40			6,7			
NOTE	1,2				1,2				1,2						
REF.	11-355				11-355				11-355						
ISSUE	A				A				A						
SYMBOL	STANDARD VARIATIONS											NOTE			
	HC			NOTE	HD			NOTE	JA						
	MIN.	NOM.	MAX.		MIN.	NOM.	MAX.		MIN.	NOM.	MAX.				
D	12.4	12.5	12.6	3,9	13.9	14.0	14.1	3,9	9.6	9.7	9.8	3,9			
E1	7.9	8.0	8.1	4,9	7.9	8.0	8.1	4,9	7.9	8.0	8.1	4,9			
E	10.0 BSC				10.0 BSC				10.0 BSC						
e	0.50 BSC				0.50 BSC				0.40 BSC						
N	48			6,7	56			6,7	48			6,7			
NOTE	1,2				1,2				1,2						
REF.	11-355				11-355				11-366						
ISSUE	A				A				A						
SYMBOL	STANDARD VARIATIONS											NOTE			
	JB			NOTE	JC			NOTE	JC-1						
	MIN.	NOM.	MAX.		MIN.	NOM.	MAX.		MIN.	NOM.	MAX.				
D	10.9	11.0	11.1	3,9	12.4	12.5	12.6	3,9	12.4	12.5	12.6	3,9			
E1	7.9	8.0	8.1	4,9	7.9	8.0	8.1	4,9	7.9	8.0	8.1	4,9			
E	10.0 BSC				10.0 BSC				10.0 BSC						
e	0.40 BSC				0.40 BSC				0.40 BSC						
N	52			6,7	56			6,7	60			6,7			
NOTE	1,2				1,2				1,2						
REF.	11-355				11-355				11-440						
ISSUE	A				A				C						
JEDEC SOLID STATE PRODUCT OUTLINES				TITLE PLASTIC SHRINK SMALL OUTLINE PKG R-PDSO-G/SSOP				ISSUE C		DATE 1/96		MO-152		SHEET 9 OF 10	

