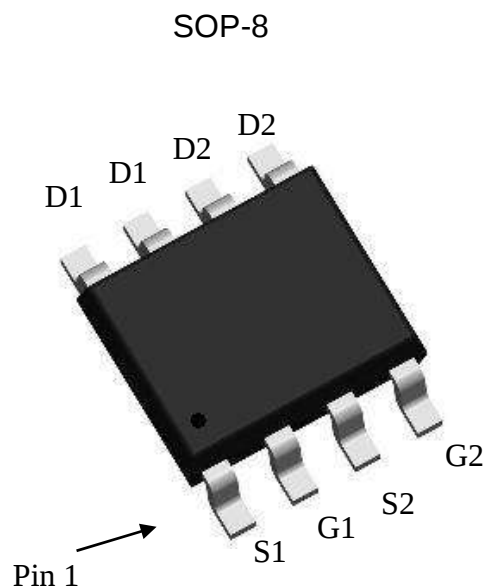


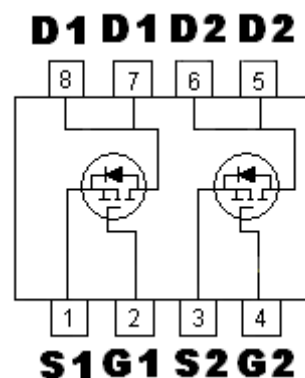
Dual P-Channel Enhancement Mode Power MOSFET

Features:

- Simple drive requirement
- Low on-resistance
- Fast switching speed
- Pb-free lead plating and halogen-free package



BVDSS	-30V
ID@TA=25 °C, VGS=-10V	-5.3A
RDSON@VGS=-10V, ID=-5A	52mΩ(typ)
RDSON@VGS=-4.5V, ID=-4A	90mΩ(typ)



G : Gate S : Source D : Drain

Ordering Information

Device	Package	Shipping
KSCP4953	SOP-8 (Pb-free lead plating and halogen-free package)	2500 pcs / tape & reel
KSCP4953	SOP-8 (Pb-free lead plating and halogen-free package)	4000 pcs / tape & reel

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Drain-Source Breakdown Voltage	BV _{DSS}	-30	V
Gate-Source Voltage	V _{GS}	±20	
Continuous Drain Current @T _A =25 °C (Note 1)	I _D	-5.3	A
Continuous Drain Current @T _A =70 °C (Note 1)		-4.2	
Pulsed Drain Current (Note 2)	I _{DM}	-20	
Total Power Dissipation (Note 1)	P _D	2	W
Linear Derating Factor		0.02	W / °C
Operating Junction and Storage Temperature Range	T _j ; T _{stg}	-55~+150	°C
Thermal Resistance, Junction-to-Ambient (Note 1)	R _{th,ja}	62.5	°C/W

Note : 1.Surface mounted on 1 in² copper pad of FR-4 board, t≤10s.
2.Pulse width ≤300μs, duty cycle≤2%

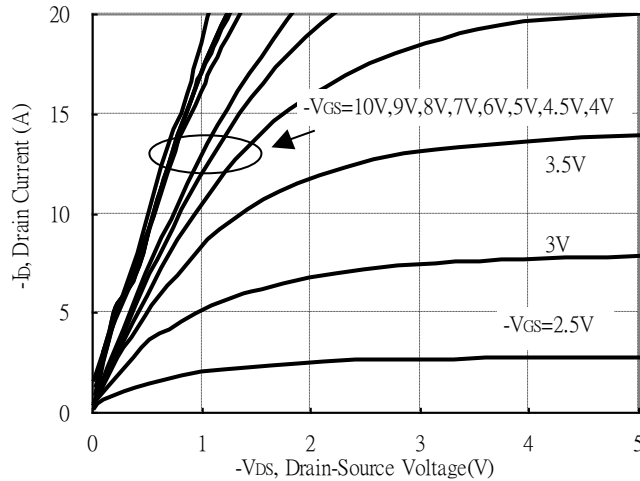
Electrical Characteristics (Tj=25°C, unless otherwise specified)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Static					
BV _{DSS}	-30	-	-	V	V _{GS} =0V, I _D =-250μA
V _{GS(th)}	-1	-	-2.5		V _{DS} =V _{GS} , I _D =-250μA
I _{GSS}	-	-	±100	nA	V _{GS} =±20V, V _{DS} =0V
I _{DSS}	-	-	-1	μA	V _{DS} =-24V, V _{GS} =0V
*R _{DS(ON)}	-	52	65	mΩ	I _D =-5A, V _{GS} =-10V
	-	90	120		I _D =-4A, V _{GS} =-4.5V
*G _{FS}	-	7.9	-	S	V _{DS} =-5V, I _D =-5A
Dynamic					
C _{iss}	-	453	-	pF	V _{DS} =-15V, V _{GS} =0V, f=1MHz
C _{oss}	-	59	-		
C _{rss}	-	56	-		
*t _{d(ON)}	-	4.6	-	ns	V _{DS} =-15V, I _D =-1A, V _{GS} =-10V, R _G =3.3Ω
*t _r	-	7	-		
*t _{d(OFF)}	-	33	-		
*t _f	-	5	-		
*Q _g	-	11	-	nC	V _{DS} =-15V, I _D =-5.3A, V _{GS} =-10V
*Q _{gs}	-	1.1	-		
*Q _{gd}	-	2.7	-		
R _g	-	11	-	Ω	f=1MHz
Source-Drain Diode					
*V _{SD}	-	-0.83	-1.2	V	V _{GS} =0V, I _S =-1.7A
*Q _{rr}	-	8.1	-	nC	I _F =-1.7A, dI _F /dt=100A/μs
*trr	-	3.6	-	ns	

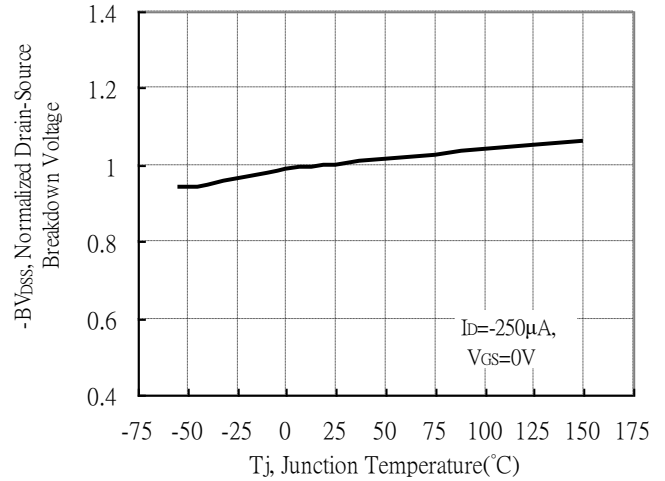
*Pulse Test : Pulse Width ≤300μs, Duty Cycle≤2%

Typical Characteristics

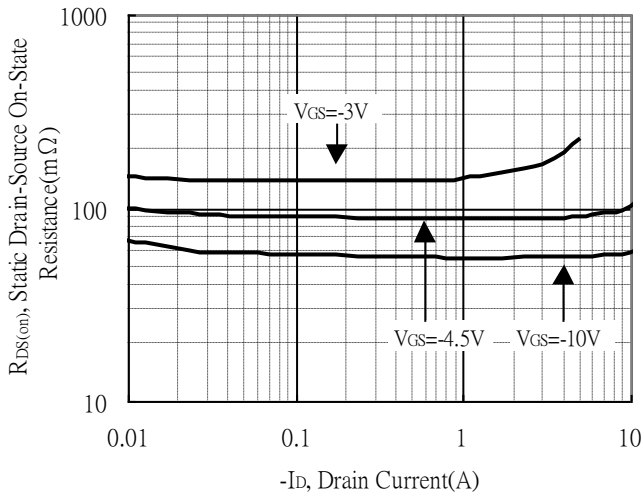
Typical Output Characteristics



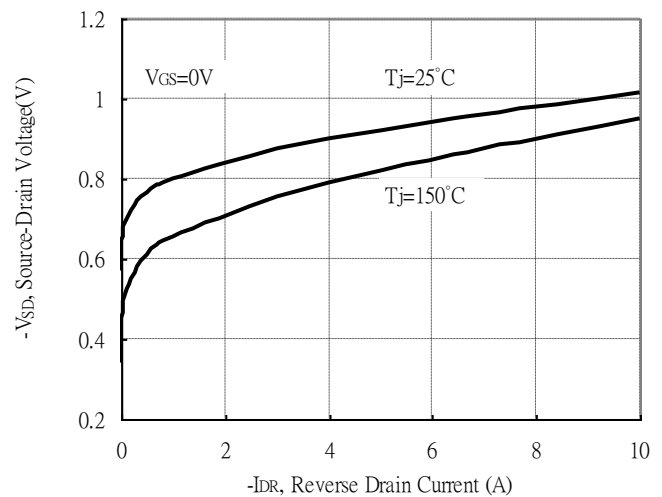
Breakdown Voltage vs Ambient Temperature



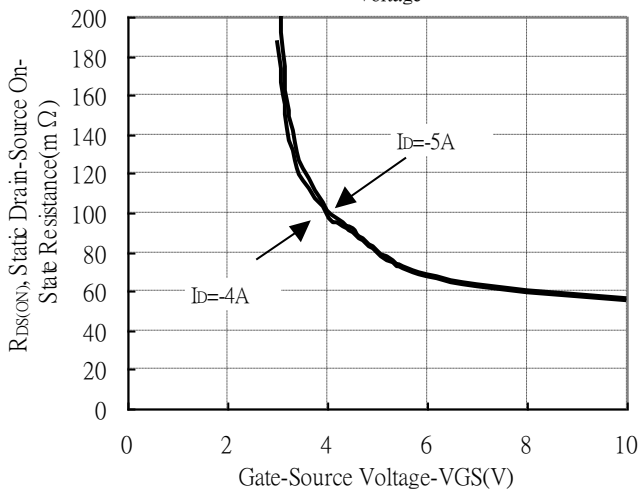
Static Drain-Source On-State resistance vs Drain Current



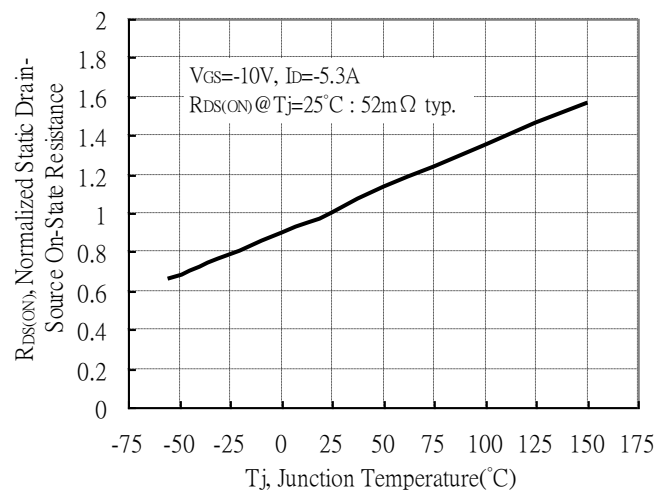
Reverse Drain Current vs Source-Drain Voltage



Static Drain-Source On-State Resistance vs Gate-Source Voltage

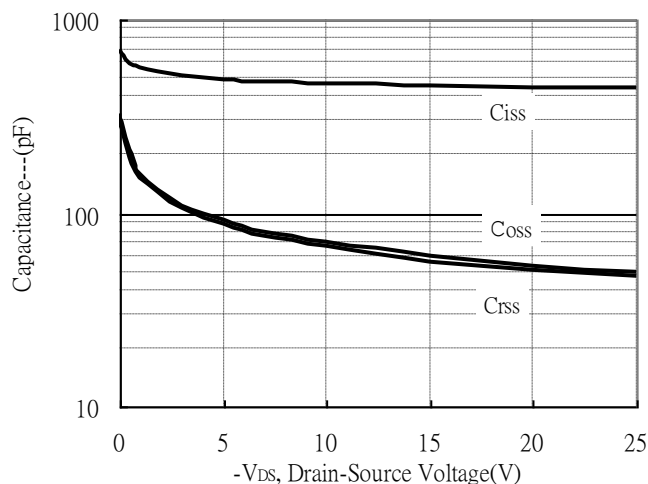


Drain-Source On-State Resistance vs Junction Temperature

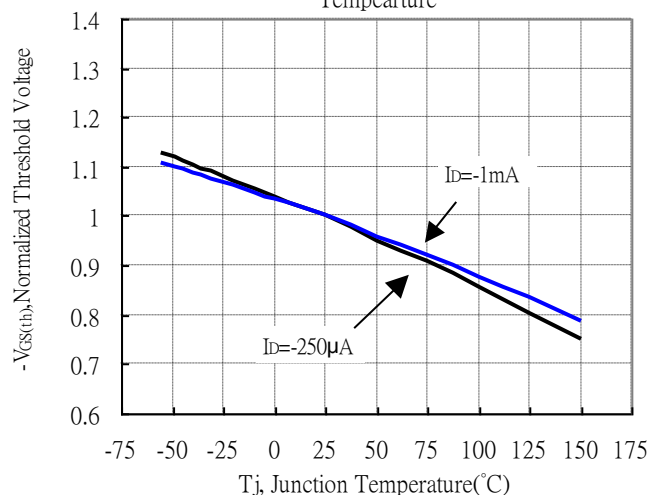


Typical Characteristics (Cont.)

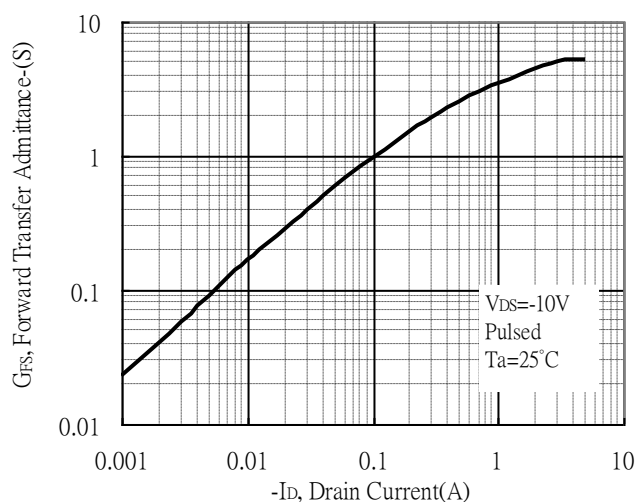
Capacitance vs Drain-to-Source Voltage



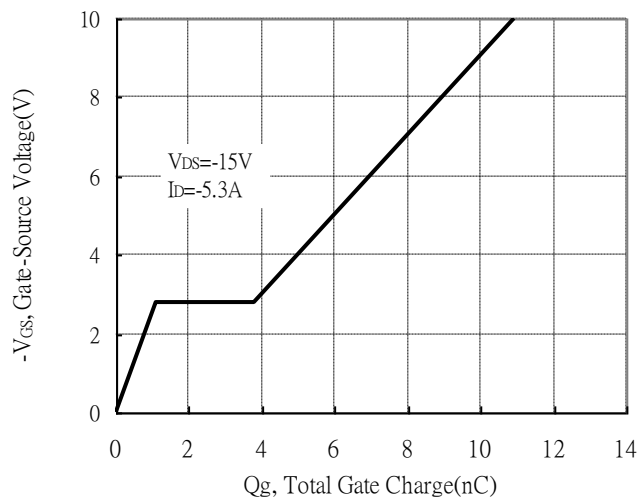
Normalized Threshold Voltage vs Junction Temperature



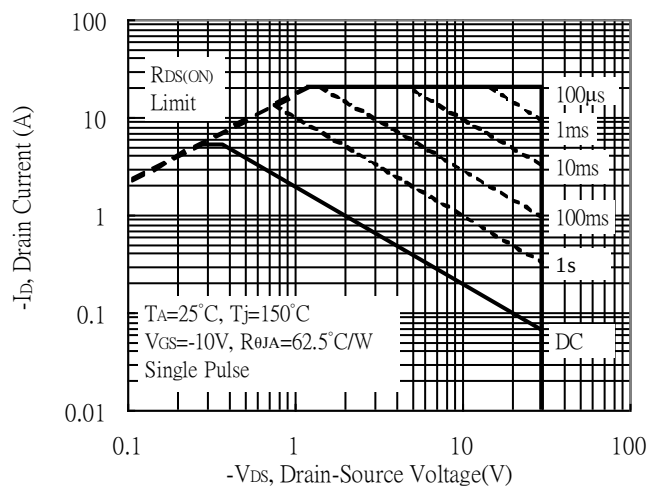
Forward Transfer Admittance vs Drain Current



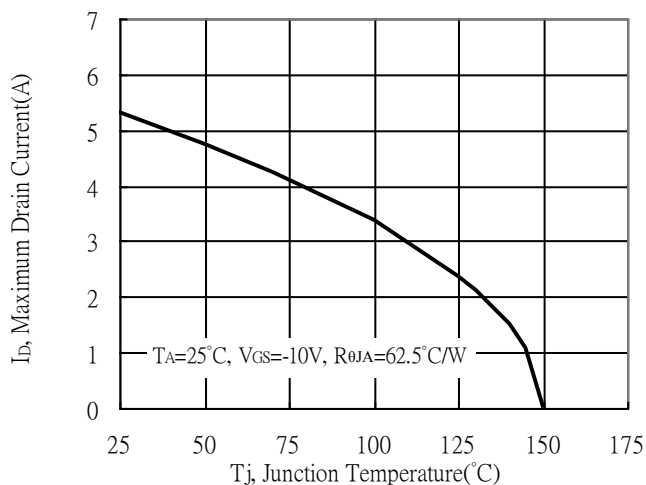
Gate Charge Characteristics



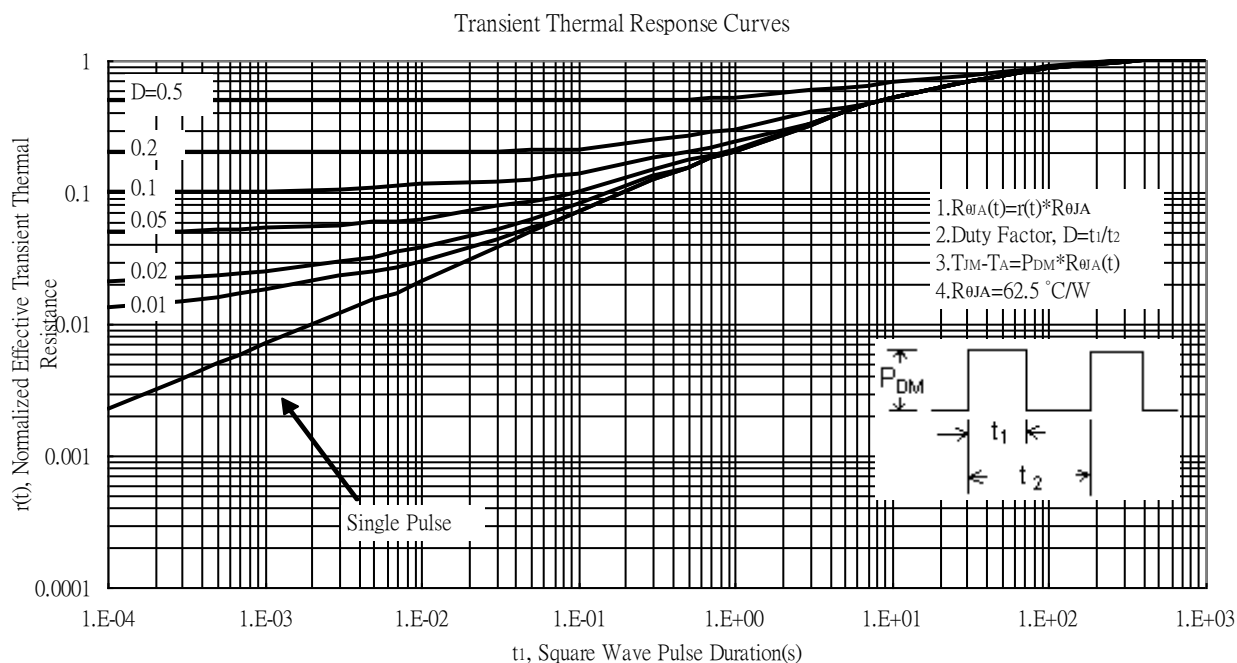
Maximum Safe Operating Area



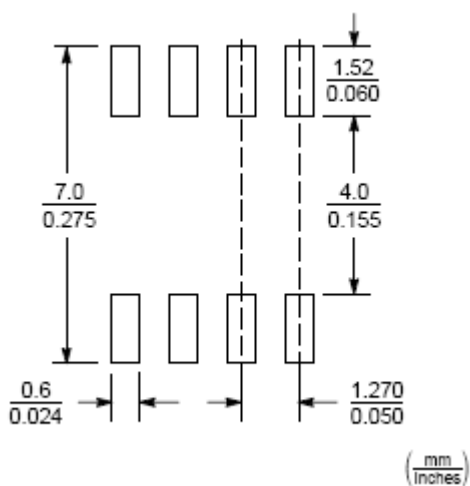
Maximum Drain Current vs Junction Temperature



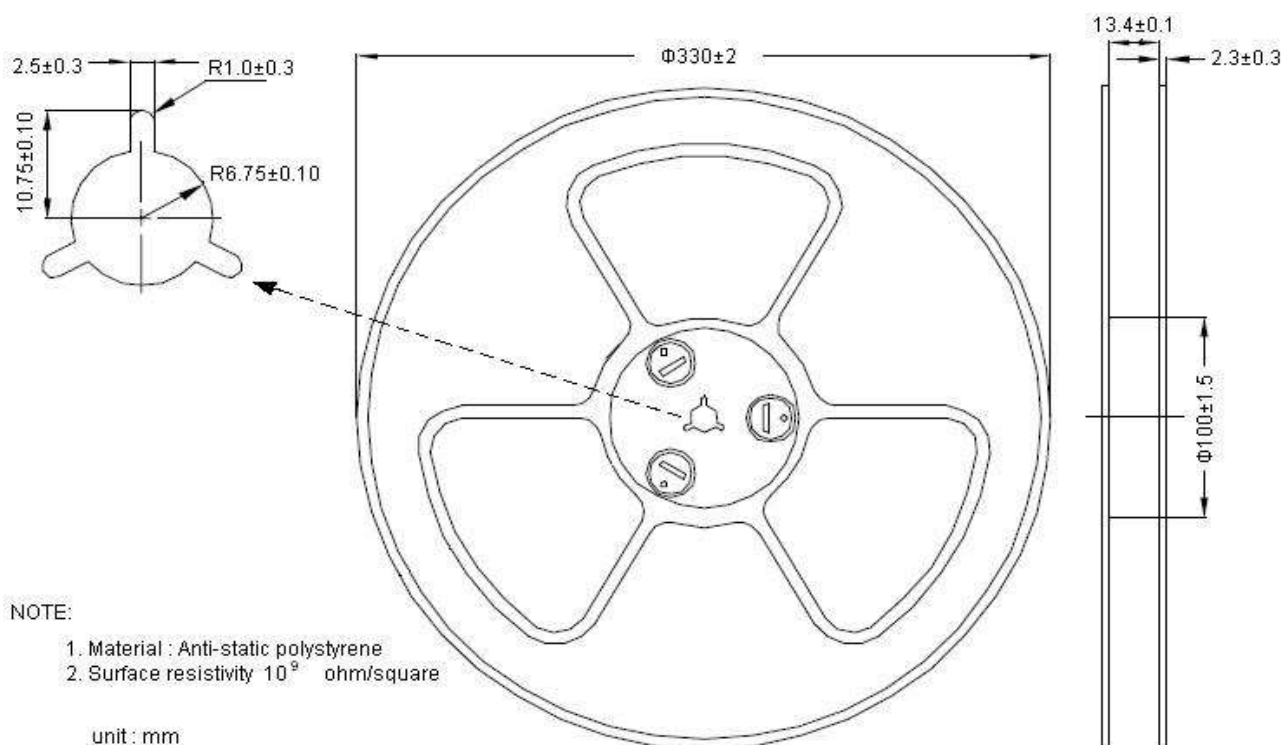
Typical Characteristics (Cont.)



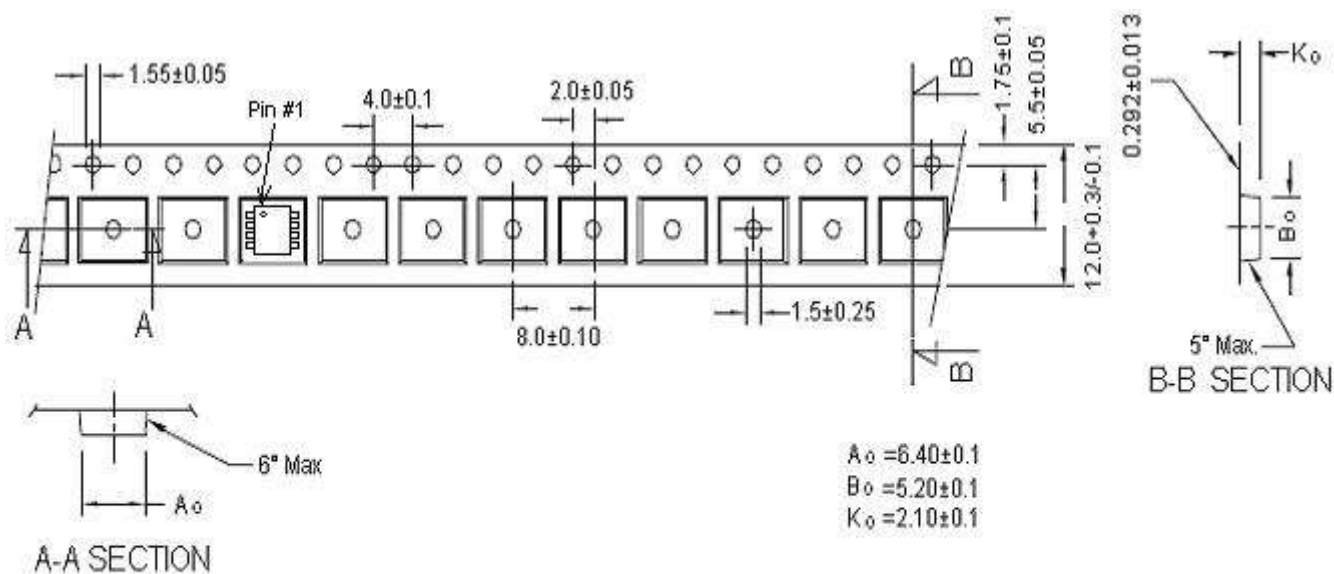
Recommended Soldering Footprint

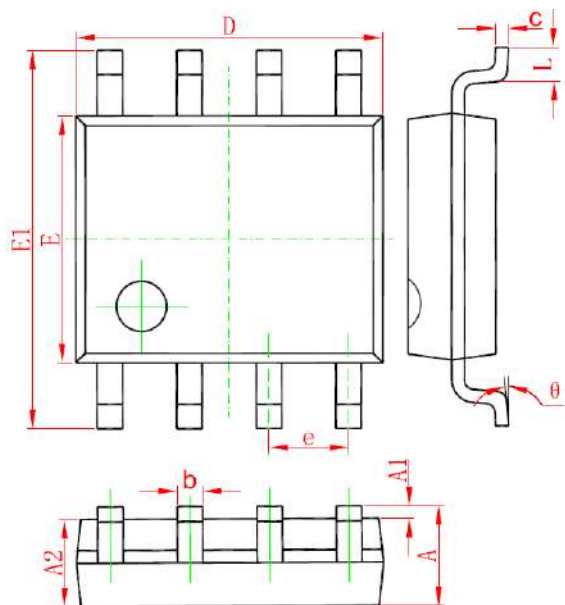


Reel Dimension

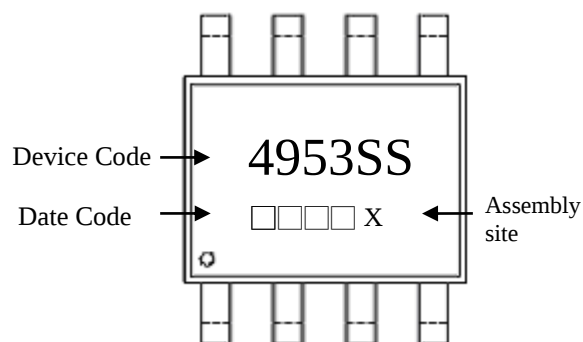


Carrier Tape Dimension





Marking:



Date Code(counting from left to right) :

1st code: year code, the last digit of Christian year

2nd code : month code, Jan→A, Feb→B, Mar→C, Apr→D

May→E, Jun→F, Jul→G, Aug→H, Sep→J,

Oct→K, Nov→L, Dec→M

3rd and 4th codes : production serial number, 01~99

Assembly site : blank for site 1, G for site 2

8-Lead SOP-8 Plastic Package

*: Typical

DIM	Millimeters		Inches		DIM	Millimeters		Inches	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	1.350	1.750	0.053	0.069	E	3.800	4.000	0.150	0.157
A1	0.100	0.250	0.004	0.010	E1	5.800	6.200	0.228	0.244
A2	1.350	1.550	0.053	0.061	e	*1.270		*0.050	
b	0.330	0.510	0.013	0.020	L	0.400	1.270	0.016	0.050
c	0.170	0.250	0.006	0.010	θ	0°	8°	0°	8°
D	4.700	5.100	0.185	0.200					