# 2SK545

# ON Semiconductor®

# N-Channel JFET 40V, 55 to 95μA, 0.10mS, CP

http://onsemi.com

# **Applications**

- · Impedance converter applications
- · Infrared sensor

#### **Features**

- · Small IGSS
- · Small Ciss
- · Ultrasmall package permitting 2SK545-applied sets to be compact

# **Specifications**

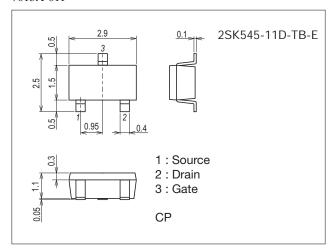
## Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	VDSS		40	V
Gate-to-Drain Voltage	V <sub>GDS</sub>		-40	V
Gate Current	IG		10	mA
Drain Current	ID		1	mA
Allowable Power Dissipation	PD		100	mW
Junction Temperature	Tj		125	°C
Storage Temperature	Tstg		-55 to +125	°C

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

#### **Package Dimensions**

unit : mm (typ) 7013A-011



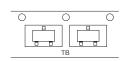
#### **Product & Package Information**

• Package : CP

• JEITA, JEDEC : SC-59, TO-236, SOT-23, TO-236AB

• Minimum Packing Quantity: 3,000 pcs./reel

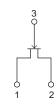
### Packing Type: TB



#### Marking



#### **Electrical Connection**

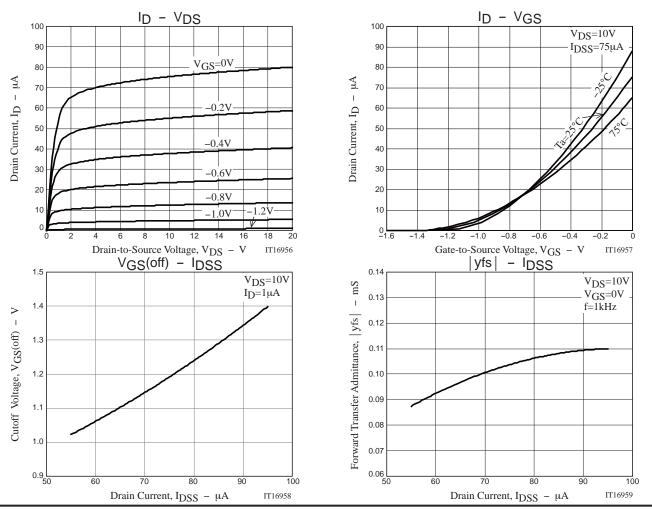


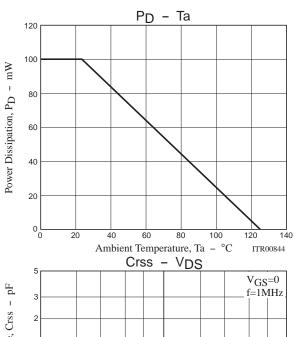
#### Electrical Characteristics at Ta=25°C

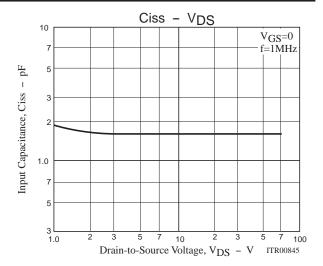
Parameter	Symbol	Conditions	Ratings			Unit
		Conditions	min	typ	max	OTIIL
Gate-to-Drain Breakdown Voltage	V(BR)GDS	I <sub>D</sub> =-10μA, V <sub>D</sub> S=0V	-40			V
Gate Cutoff Current	IGSS	V <sub>GS</sub> =-20V, V <sub>DS</sub> =0V			-500	рА
Drain Current	IDSS	V <sub>DS</sub> =10V, V <sub>GS</sub> =0V	55		95	μΑ
Cutoff Voltage	V <sub>GS</sub> (off)	$V_{DS}$ =10V, $I_{D}$ =1 $\mu$ A		-1.2	-4.0	V
Forward Transfer Admittance	yfs	V <sub>DS</sub> =10V, V <sub>GS</sub> =0V, f=1kHz	0.05	0.10		mS
Input Capacitance	Ciss	VDS=10V, VGS=0V, f=1MHz		1.7		pF
Reverse Transfer Capacitance	Crss	VDS=10V, VGS=0V, I=1IVIHZ		0.7		pF

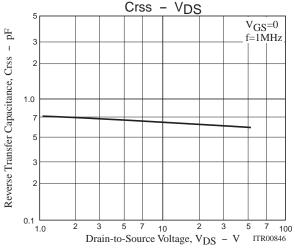
## **Ordering Information**

Device	Package	Shipping	memo	
2SK545-11D-TB-E	СР	3,000pcs./reel	Pb Free	







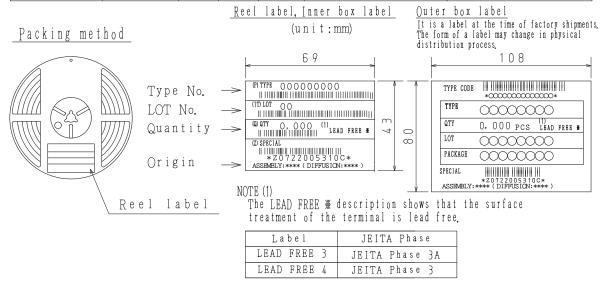


#### **Embossed Taping Specification**

#### 2SK545-11D-TB-E

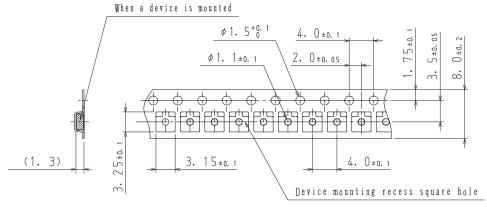
## 1. Packing Format

ſ	Package Name	Carrier Tape	Maximum Number of devices contained (pcs)			Packing format		
		Туре	Reel	Inner box	Outer box	Inner BOX (C-1)	Outer BOX (A-7)	
	СР	СР	3, 000	15, 000	90,000	5 reels contained	6 inner boxes contained	
						Dimensions:mm (external)	Dimensions:mm (external)	
						183×72×185	440×195×210	

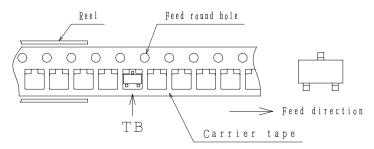


# 7. Taping configuration

2-1. Carrier tape size (unit:mm)



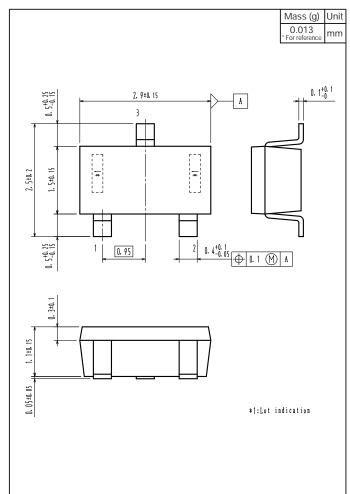
2-2. Device placement direction



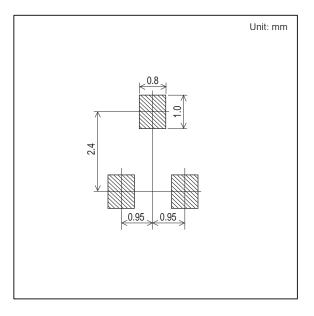
Those with one electrode terminal on the feed hole side·····TB

# **Outline Drawing**

2SK545-11D-TB-E



# Land Pattern Example



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