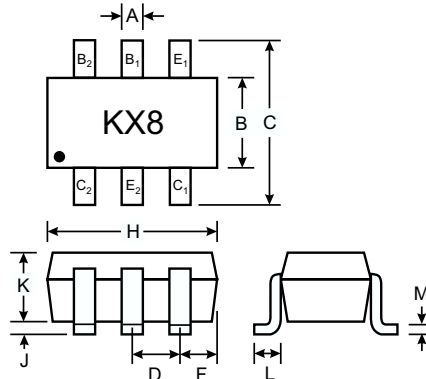


**Features**

- Epitaxial Planar Die Construction
- Complementary PNP Type Available (IMT4)
- Small Surface Mount Package

**Mechanical Data**

- Case: SOT-26, Molded Plastic
- Case material - UL Flammability Rating Classification 94V-0
- Terminals: Solderable per MIL-STD-202, Method 208
- Terminal Connections: See Diagram
- Marking: KX8
- Weight: 0.016 grams (approx.)



SOT-26			
Dim	Min	Max	Typ
A	0.35	0.50	0.38
B	1.50	1.70	1.60
C	2.70	3.00	2.80
D	—	—	0.95
F	—	—	0.55
H	2.90	3.10	3.00
J	0.013	0.10	0.05
K	1.00	1.30	1.10
L	0.35	0.55	0.40
M	0.10	0.20	0.15
All Dimensions in mm			

**Maximum Ratings** @  $T_A = 25^\circ\text{C}$  unless otherwise specified

Characteristic	Symbol	IMX8	Unit
Collector-Base Voltage	$V_{CBO}$	120	V
Collector-Emitter Voltage	$V_{CEO}$	120	V
Emitter-Base Voltage	$V_{EBO}$	5.0	V
Collector Current - Continuous	$I_C$	50	mA
Power Dissipation (Note 1)	$P_d$	225	mW
Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	555	$^\circ\text{C}/\text{W}$
Operating and Storage and Temperature Range	$T_j, T_{STG}$	-55 to +150	$^\circ\text{C}$

**Electrical Characteristics** @  $T_A = 25^\circ\text{C}$  unless otherwise specified

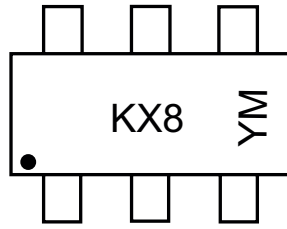
Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
<b>OFF CHARACTERISTICS (Note 2)</b>						
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	120	—	—	V	$I_C = 50\mu\text{A}$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	120	—	—	V	$I_C = 1.0\text{mA}$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5.0	—	—	V	$I_E = 50\mu\text{A}$
Collector Cutoff Current	$I_{CBO}$	—	—	0.5	$\mu\text{A}$	$V_{CB} = 100\text{V}$
Emitter Cutoff Current	$I_{EBO}$	—	—	0.5	$\mu\text{A}$	$V_{EB} = 4.0\text{V}$
<b>ON CHARACTERISTICS (Note 2)</b>						
DC Current Gain	$h_{FE}$	180	—	820	—	$I_C = 2.0\text{mA}, V_{CE} = 6.0\text{V}$
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	—	—	0.5	V	$I_C = 10\text{mA}, I_B = 1.0\text{mA}$
<b>SMALL SIGNAL CHARACTERISTICS</b>						
Current Gain-Bandwidth Product	$f_T$	—	140	—	MHz	$V_{CE} = 12\text{V}, I_E = -2.0\text{mA}, f = 100\text{MHz}$

**Ordering Information** (Note 3)

Device	Packaging	Shipping
IMX8-7	SOT-26	3000/Tape & Reel

- Notes: 1. Device mounted on FR-5 PCB 1.0 x 0.75 x 0.062 inch pad layout as shown on Diodes Inc. suggested pad layout AP02001, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>. 200mW per element must not be exceeded.  
 2. Short duration test pulse used to minimize self-heating effect.  
 3. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

Marking Information



KX8 = Product Type Marking Code  
 YM = Date Code Marking  
 Y = Year ex: N = 2002  
 M = Month ex: 9 = September

Date Code Key

<b>Year</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>
<b>Code</b>	J	K	L	M	N	O	P

<b>Month</b>	<b>Jan</b>	<b>Feb</b>	<b>March</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>
<b>Code</b>	1	2	3	4	5	6	7	8	9	O	N	D