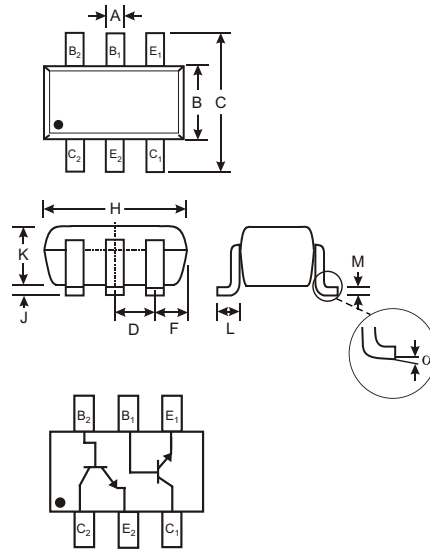


Features

- Epitaxial Planar Die Construction
- Complementary PNP Type Available (IMT4)
- Small Surface Mount Package
- Also Available in Lead Free Version

Mechanical Data

- Case: SOT-26, Molded Plastic
- Case material - UL Flammability Rating Classification 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Terminals: Solderable per MIL-STD-202, Method 208
- Also Available in Lead Free Plating (Matte Tin Finish). Please see Ordering Information, Note 4, on Page 2
- Terminal Connections: See Diagram
- Marking (See Page 2): KX8
- Ordering & Date Code Information: See Page 2
- 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 |
| α | 0° | 8° | — |
| 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 | 300 | mW |
| Thermal Resistance, Junction to Ambient (Note 1) | $R_{\theta JA}$ | 417 | $^\circ\text{C}/\text{W}$ |
| 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 |
|--------------------------------------|---------------|-----|-----|-----|---------------|---|
| OFF CHARACTERISTICS (Note 2) | | | | | | |
| 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 | μA | $V_{CB} = 100\text{V}$ |
| Emitter Cutoff Current | I_{EBO} | — | — | 0.5 | μA | $V_{EB} = 4.0\text{V}$ |
| ON CHARACTERISTICS (Note 2) | | | | | | |
| 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 | $I_C = 10\text{mA}, I_B = 1.0\text{mA}$ |
| SMALL SIGNAL CHARACTERISTICS | | | | | | |
| Current Gain-Bandwidth Product | f_T | — | 140 | — | MHz | $V_{CE} = 12\text{V}, I_E = -2.0\text{mA}, f = 100\text{MHz}$ |

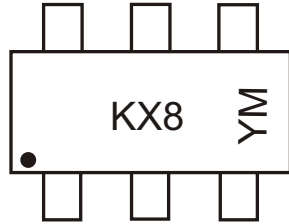
- Notes: 1. Device mounted on FR-5 PCB 1.0 x 0.75 x 0.062 inch pad layout as shown on Diodes Inc. suggested pad layout AP02001, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>. 200mW per element must not be exceeded.
 2. Short duration test pulse used to minimize self-heating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

Ordering Information (Note 3)

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

- Notes: 3. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.
 4. For Lead Free version (with Lead Free terminal finish) part number, please add "-F" suffix to part number above.
 Example: IMX8-7-F.

Marking Information

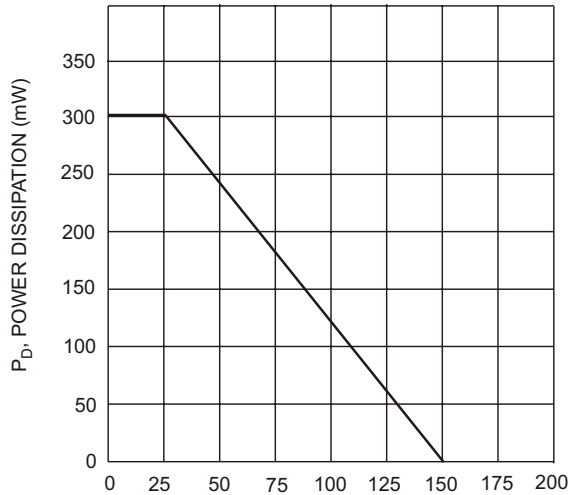


KX8 = Product Type Marking Code
 YM = Date Code Marking
 Y = Year ex: N = 2002
 M = Month ex: 9 = September

Date Code Key

| Year | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|------|------|------|------|------|------|------|------|------|
| Code | N | P | R | S | T | U | V | W |

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



T_A , AMBIENT TEMPERATURE (°C)
 Fig. 1. Max Power Dissipation vs Ambient Temperature

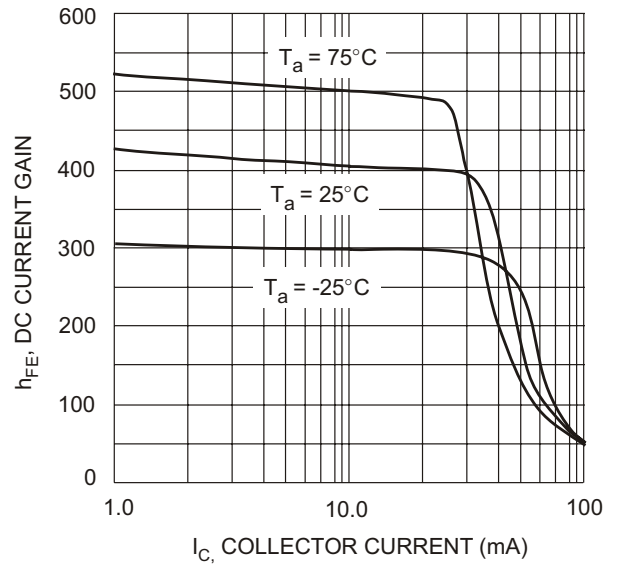
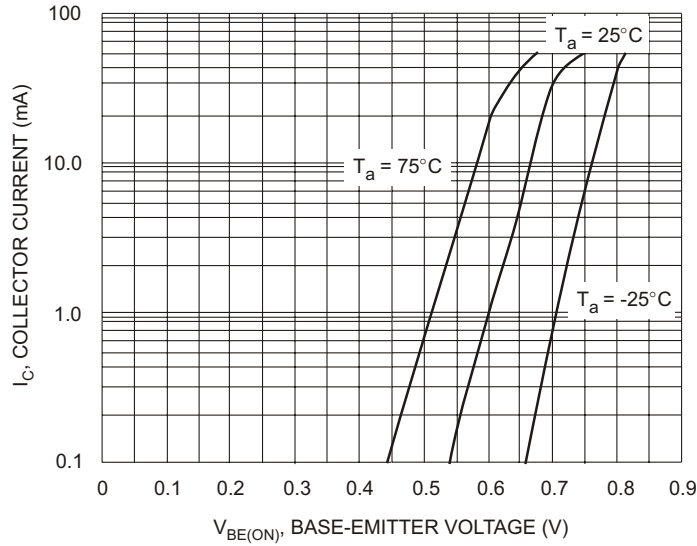
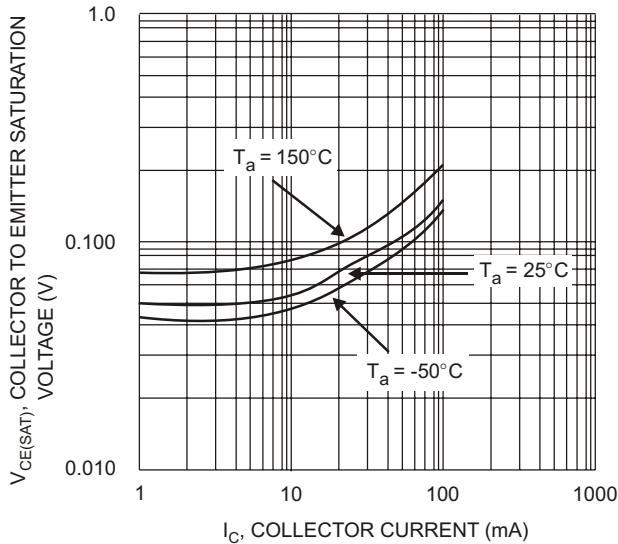


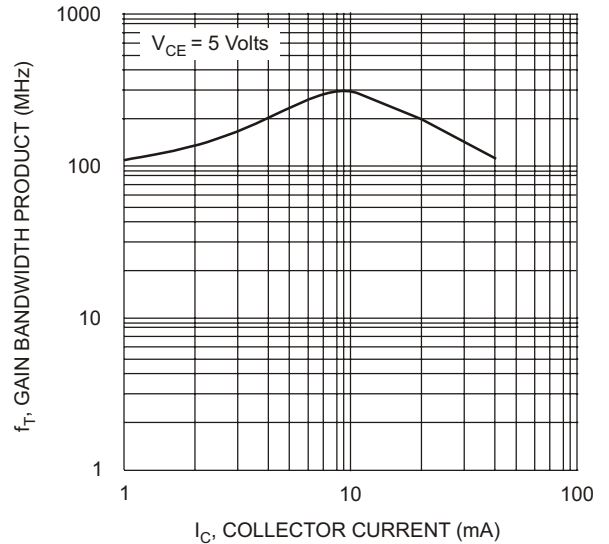
Fig. 2. Typical DC Current Gain vs. Collector Current



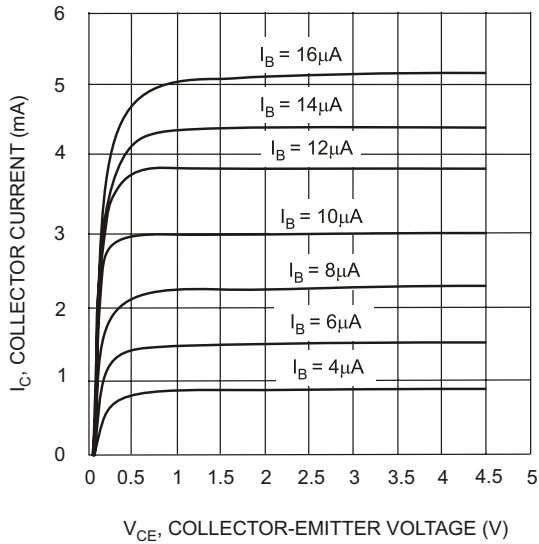
$V_{BE(ON)}$, BASE-EMITTER VOLTAGE (V)
Fig. 3 Typical Collector Current vs. Base-Emitter Voltage



I_C , COLLECTOR CURRENT (mA)
Fig. 4 Typical Collector-Emitter Voltage vs. Collector Current



I_C , COLLECTOR CURRENT (mA)
Fig. 5 Typical Gain Bandwidth Product vs. Collector Current



V_{CE} , COLLECTOR-EMITTER VOLTAGE (V)
Fig. 6 Typical Collector Current vs. Collector-Emitter Voltage

单击下面可查看定价，库存，交付和生命周期等信息

[>>Diodes Incorporated\(达达科技\(美台\)\)](#)