

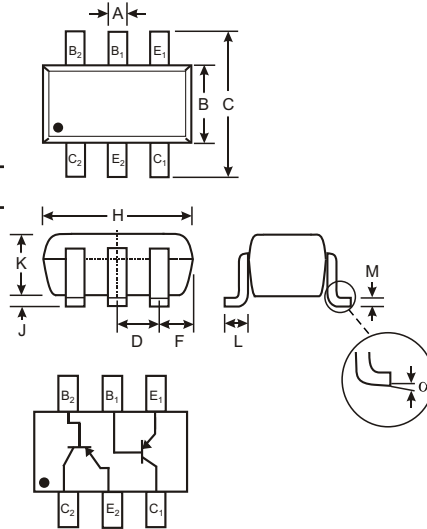
DUAL PNP SMALL SIGNAL SURFACE MOUNT TRANSISTOR

Features

- Epitaxial Planar Die Construction
- Complementary NPN Type Available (IMX8)
- Small Surface Mount Package
- Lead Free/RoHS Compliant (Note 3)**
- "Green" Device, Note 4 and 5**

Mechanical Data

- Case: SOT-26
- Case Material: Molded Plastic, "Green" Molding Compound, Note 5. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminal Connections: See Diagram
- Terminals: Solderable per MIL-STD-202, Method 208
- Lead Free Plating (Matte Tin Finish annealed over Copper leadframe).
- Marking: KX7, See Page 2
- Ordering & Date Code Information: See Page 2
- Weight: 0.016 grams (approximate)



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
	0	8°	
All Dimensions in mm			

Maximum Ratings @ T_A = 25 C unless otherwise specified

Characteristic	Symbol	Value	Unit
Collector-Base Voltage	V _{CB0}	-120	V
Collector-Emitter Voltage	V _{CE0}	-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 _{JA}	555	C/W
Operating and Storage Temperature Range	T _j , T _{STG}	-55 to +150	C

Electrical Characteristics @ T_A = 25 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 A
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	-120			V	I _C = -1.0mA
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	-5.0			V	I _E = -50 A
Collector Cutoff Current	I _{CB0}			-0.5	A	V _{CB} = -100V
Emitter Cutoff Current	I _{EBO}			-0.5	A	V _{EB} = -4.0V
ON CHARACTERISTICS (Note 2)						
DC Current Gain	h _{FE}	180		820		I _C = -2.0mA, V _{CE} = -6.0V
Collector-Emitter Saturation Voltage	V _{CE(SAT)}			-0.5	V	I _C = -10mA, I _B = -1.0mA
SMALL SIGNAL CHARACTERISTICS						
Current Gain-Bandwidth Product	f _T		140		MHz	V _{CE} = -12V, I _C = -2.0mA, f = 100MHz

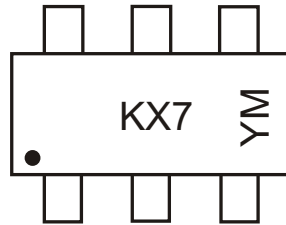
- Notes:
1. Device mounted on FR-5 PCB 1.0 x 0.75 x 0.062 inch pad layout as shown on Diodes Inc. suggested pad layout AP02001, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>. 200mW per element must not be exceeded.
 2. Short duration pulse test used to minimize self-heating effect.
 3. No purposefully added lead.
 4. Diodes Inc.'s "Green" policy can be found on our website at http://www.diodes.com/products/lead_free/index.php.
 5. Product manufactured with Date Code 0609 (week 9, 2006) and newer are built with Green Molding Compound. Product manufactured prior to Date Code 0609 are built with Non-Green Molding Compound and may contain Halogens or Sb2O3 Fire Retardants.

Ordering Information (Note 5 & 6)

Device	Packaging	Shipping
IMT4-7-F	SOT-26	3000/Tape & Reel

- Notes:
- Product manufactured with Date Code 0609 (week 9, 2006) and newer are built with Green Molding Compound. Product manufactured prior to Date Code 0609 are built with Non-Green Molding Compound and may contain Halogens or Sb2O3 Fire Retardants.
 - For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

Marking Information

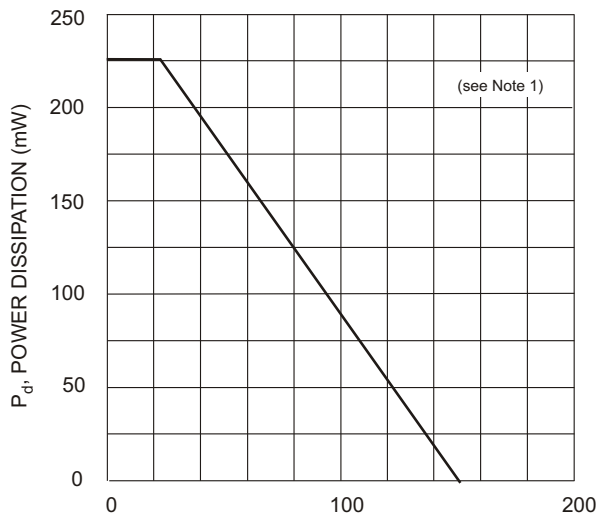


KX7 = Product Type Marking Code
 YM = Date Code Marking
 Y = Year ex: T = 2006
 M = Month ex: 9 = September

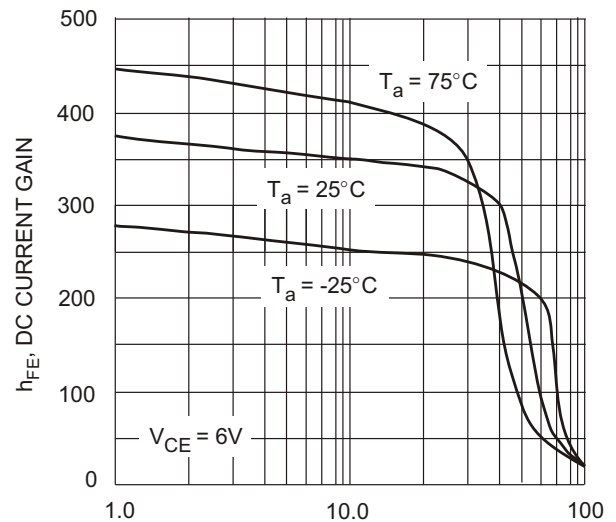
Date Code Key

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Code	N	P	R	S	T	U	V	W	X	Y	Z

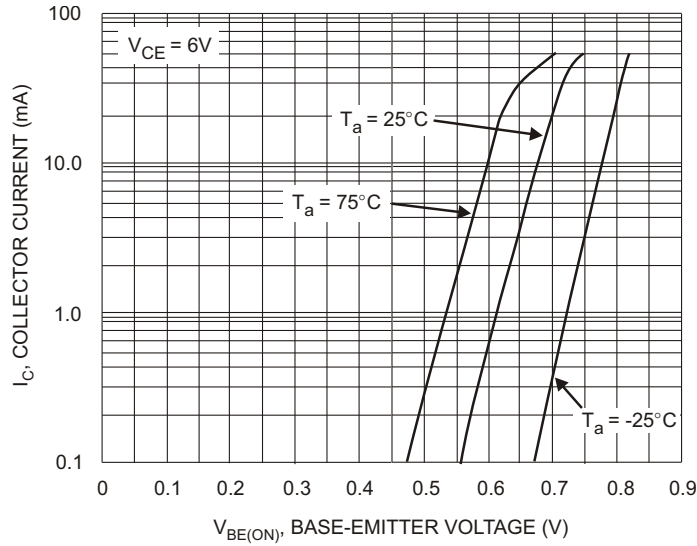
Month	Jan	Feb	March	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D



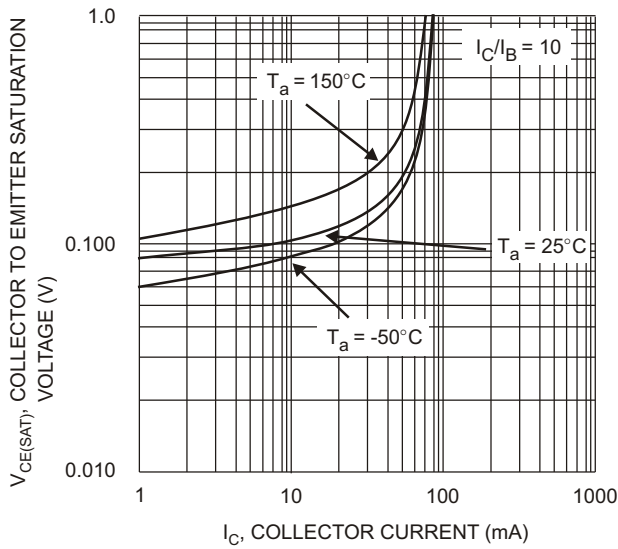
T_A , AMBIENT TEMPERATURE (°C)
 Fig. 1, Power Derating Curve



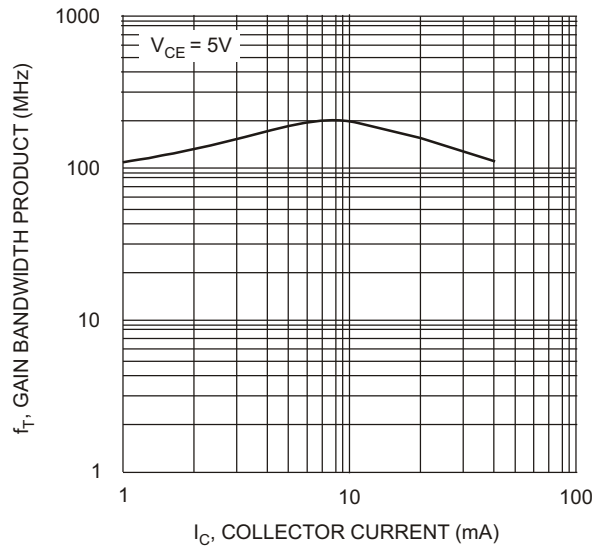
I_C , COLLECTOR CURRENT (mA)
 Fig. 2 Typical DC Current Gain vs. Collector Current



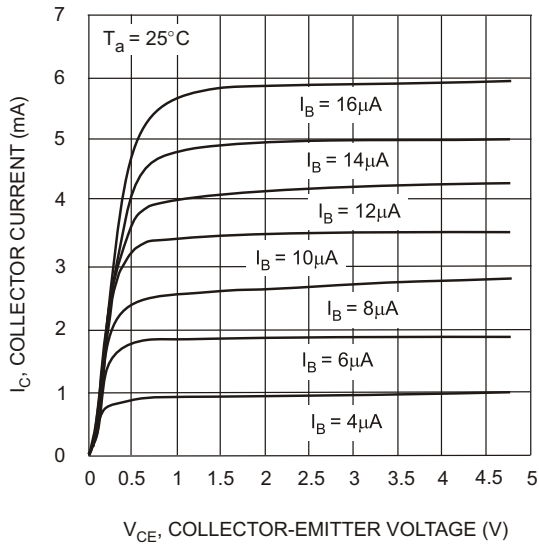
$V_{BE(ON)}$, BASE-EMITTER VOLTAGE (V)
Fig. 3 Typical Collector Current vs. Base-Emitter Voltage



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

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