INC2002AX SERIES

FOR MUTING APPLICATION
SILICON NPN EPITAXIAL TYPE

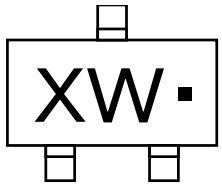
FEATURE

- Small package for easy mounting.
- High reverse h_{FE}
- Small collector to emitter saturation voltage.
  $V_{CE(sat)}$=40mV$_{(TYP.)}$ (@I_C=50mA/I_B=2.5mA)
- Low On-Resistance
  R_{ON}=0.65Ω$_{(TYP.)}$ (@I_B=5mA)

APPLICATION

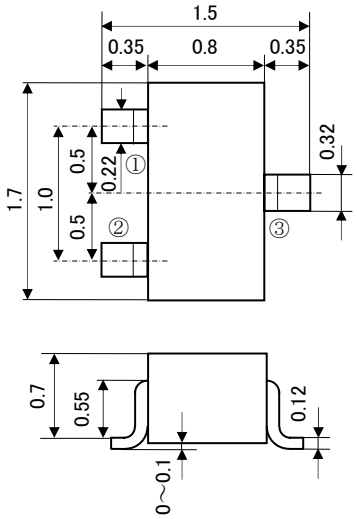
muting circuit , switching circuit

MARKING



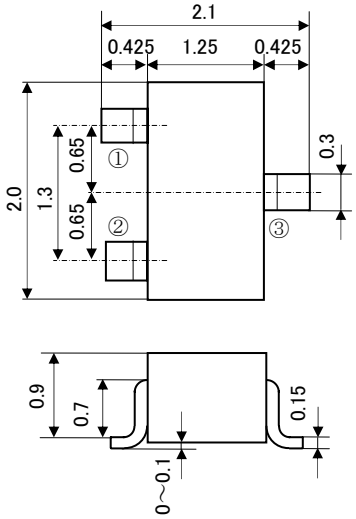
OUTLINE DRAWING (Unit : mm)

INC2002AU1



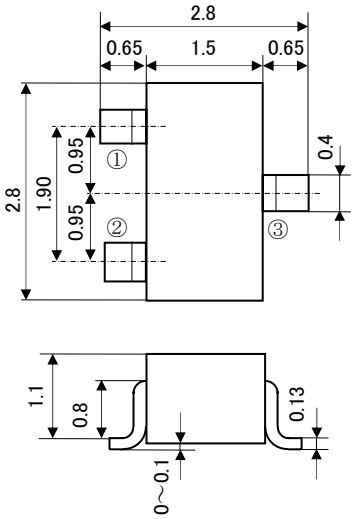
JEITA : SC-75A
JEDEC : —
TERMINAL CONNECTOR
①:BASE
②:EMITTER
③:COLLECTOR

INC2002AM1



JEITA : SC-70
JEDEC : —
TERMINAL CONNECTOR
①:BASE
②:EMITTER
③:COLLECTOR

INC2002AC1



JEITA : SC-59
JEDEC : Similar to TO-236
TERMINAL CONNECTOR
①:BASE
②:EMITTER
③:COLLECTOR

INC2002AX SERIES

FOR MUTING APPLICATION
SILICON NPN EPITAXIAL TYPE

MAXIMUM RATING (Ta=25℃)

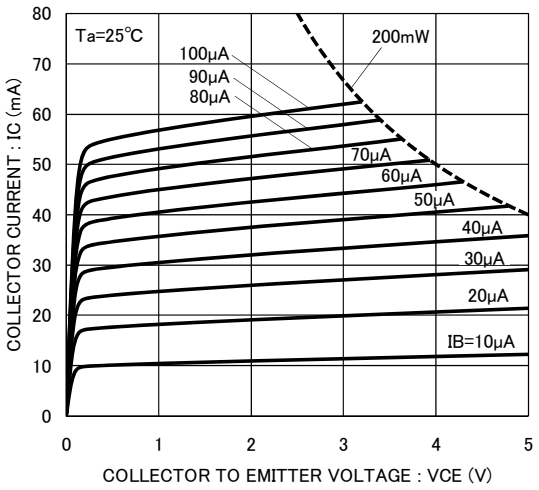
PARAMETER	SYMBOL	RATING			UNIT
		INC2002AU1	INC2002AM1	INC2002AC1	
Collector to Base voltage	V_{CBO}	50			V
Collector to Emitter voltage	V_{CEO}	20			V
Emitter to Base voltage	V_{EBO}	50			V
Collector current	I_C	600			mA
Collector dissipation	P_C	150	200		mW
Junction temperature	T_j	+150			℃
Storage temperature	T_{stg}	−55～+150			℃

ELECTRICAL CHARACTERISTICS (Ta=25℃)

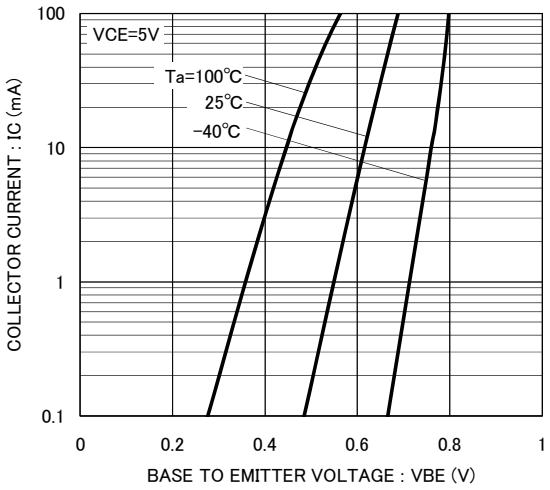
PARAMETER	SYMBOL	TEST CONCITION	LIMIT			UNIT
			MIN	TYP	MAX	
C to B breakdown voltage	$V_{(BR)CBO}$	I_C=50μA, I_E=0mA	50	−	−	V
C to E breakdown voltage	$V_{(BR)CEO}$	I_C=1mA, R_{BE}=∞	20	−	−	V
E to B breakdown voltage	$V_{(BR)EBO}$	I_E=50μA, I_C=0mA	50	−	−	V
Collector cut off current	I_{CBO}	V_{CB}=50V, I_E=0mA	−	−	0.5	μA
Emitter cut off current	I_{EBO}	V_{EB}=50V, I_C=0mA	−	−	0.5	μA
DC forward current gain	h_{FE}	V_{CE}=5V, I_C=10mA	820	−	2500	−
C to E saturation voltage	$V_{CE(sat)}$	I_C=50mA, I_B=2.5mA	−	40	150	mV
Gain band width product	f_T	V_{CE}=10V, I_E=−10mA, f=100MHz	−	40	−	MHz
Collector output capacitance	C_{ob}	V_{CB}=10V, I_E=0A, f=1MHz	−	4.0	−	pF
Output On-resistance	R_{ON}	I_B=5mA	−	0.65	−	Ω

TYPICAL CHARACTERISTICS

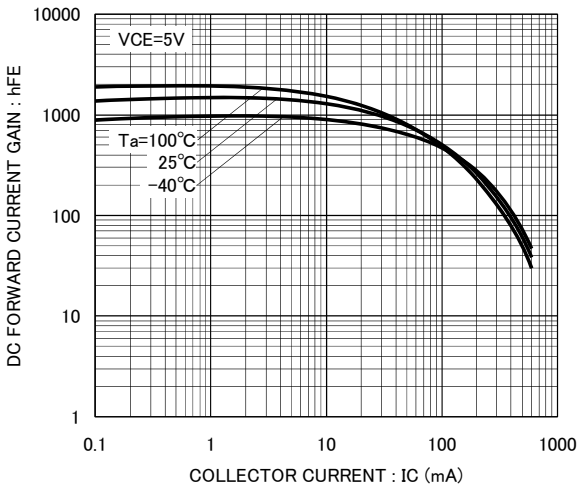
IC-VCE



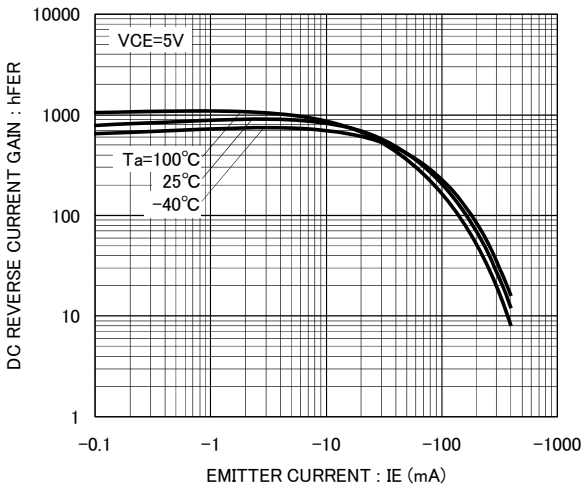
IC-VBE



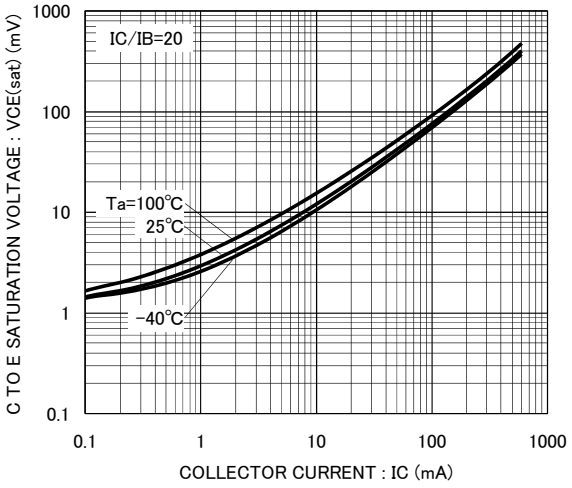
hFE-IC



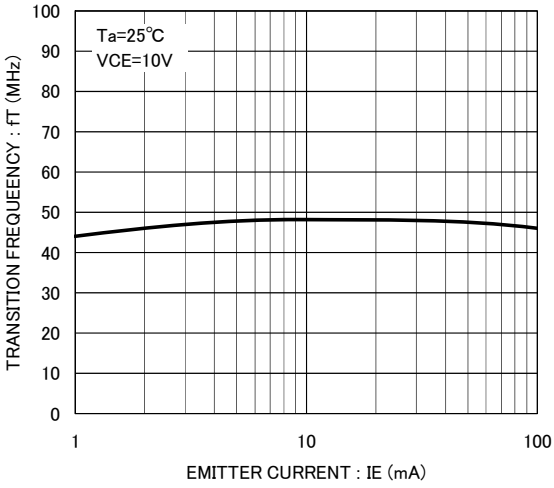
hFER-IC



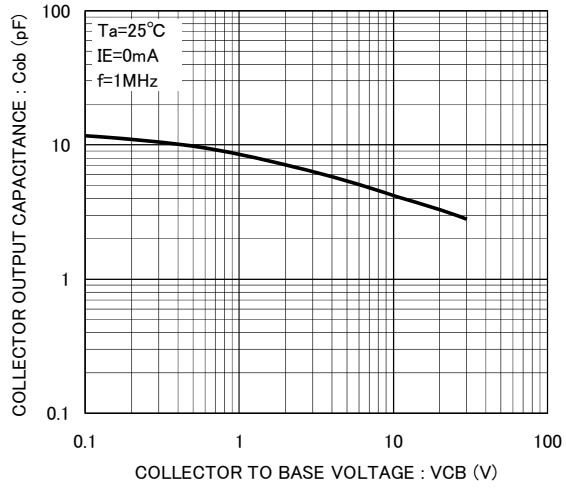
VCE(sat)-IC



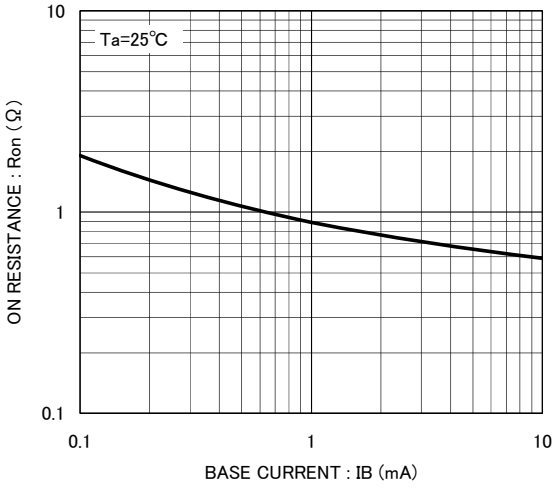
fT-IE



Cob-VCB



Ron-IB



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